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ABSTRACT

The TRIO/Special Services program at the University of Minnesota's General College (GC) is described, and 1981-1982 program evaluation results are examined. Federally-supported TRIO programs (also including Education Opportunity Centers, Talent Search, and Upward Bound programs) provide support services for disadvantaged college students. The GC's Special Services program, designed to help prevent attrition among nontraditional freshmen, has four components: an integrated course of study, including help with study skills, career planning, writing, math, and stress management; educational, vocational, and personal counseling; individual tutorial services; and a summer institute. During the 1981-1982 academic year, TRIO services were utilized by 252 students. Survey results indicate that TRIO students, compared to new GC students, were older, received a higher percent of financial aid, and included more minorities and disabled students. A higher percentage of the new TRIO students stayed in school and completed a higher proportion of credits than a similar low-income comparison group who did not receive special services. New TRIO students also maintained grade point averages similar to, or higher than, the comparison group and ended the year with higher self-esteem than the control group. A followup of second-year TRIO students revealed more TRIO students attending each quarter than control group students, but no notable differences in grades, credit completion, and overall retention for the two groups. Case studies of two TRIO students, course evaluations, a brief description of the summer institute, and a special evaluation of sign language classes and hearing impaired students are included. (SW)

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University of Minnesota
TRIO/Special Services
Program
Evaluation

Final Report
1981 - 1982

Sherry Read
University of Minnesota
General College

HE 015 739

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Foreword

Buckminster Fuller uses an analogy of earth as a spaceship, traveling through time and space toward a specific destination. He presents the notion that, like spaceships in science fiction, the travelers on earth were put to sleep for the duration of the voyage. The method used to awaken the earthlings is that one person will wake first, and that person will awaken others who will awaken others, so that when earth arrives, everyone will be awake.

Consider the consequences if the one earthling we fail to wake up happens to be the only one who knows how to land the ship. The TRIO program is about waking up those travelers put further to sleep by traditional education and those who have barriers to success. This evaluation describes the TRIO Special Services Program at General College and examines how well it has met its goals. Let us hope for a skillful pilot.

Sherry Read
General College
October 8, 1982

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Executive Summary

Introduction

The national TRIO program was funded in 1968 as a part of the Federal Higher Education Amendment. This legislation provided for support services in post secondary institutions to facilitate the educational progress of "disadvantaged" young people. In this context, disadvantaged students were defined as those from families within the national poverty criteria or the physically handicapped. Through the course of program development, disadvantaged has come to mean people who are members of groups which are currently, and have historically been, underrepresented in post secondary education.

The national TRIO program is comprised of four separate programs serving unique populations:

1) Upward Bound, which aids high school students from poverty backgrounds with academic needs in the pursuit of higher education;
2) Talent Search, a counseling and information service for college-bound low income students;
3) Special Services, for non-traditional college students, usually including specially staffed programs such as counseling, remedial study and ethnic activities; and,
4) Educational Opportunity Centers, which incorporate activities available in the other three programs within a large scale, community based center for low income adults.

The TRIO Special Services Program at the University of Minnesota, General College, is a special services program. It is the subject of the following evaluation.

National Special Services Evaluation and Literature Review

The most recent evaluation of special services programs was conducted in 1981 by Systems Development Corporation, Santa Monica, California. The key findings concerning program impact were:

- Students who receive a full range of services are more likely to stay in school for their freshman year than students receiving few or no services.
- Students receiving more services are likely to attempt and complete more course credits.
- Students receiving a full range of services are more likely to receive lower grade point averages than students receiving fewer services. (This may indicate only that these programs focus on and provide more services to students with poor entry level skills.)
- Minority and low income students receive lower grades and take fewer course credits than other students, but have comparable retention rates.
- Students with higher levels of financial aid are more likely to stay in school during their freshman year, attempt and complete more credits, and obtain higher grades.

A review of the research and evaluations in the area of improving performance in higher education for disadvantaged students was conducted as a part of this evaluation. Several recommendations can be made toward providing more effective programs based on this information.

- Multidimensional programs where students receive a full range of services such as study skills, counseling, tutoring, orientation, survival skills, and training in specific self monitoring techniques, are more successful in retaining students.
- The actual time spent in service does not have to be great (3-20 hours) but should be focused on the quarter or semester of entry into higher education.
- Programing should be flexible, designed to meet the needs of students, with continuous systematic planning and feedback.
- Clearly written program objectives should be made available to students.
- Program environment should foster growth of positive self images and provide opportunities for success.

Several of these recommendations are incorporated into the goals of the TRIO/Special Services program at the University of Minnesota, General College.

Program Description

As the open-admissions unit of the University of Minnesota, General College has more non-traditional students than other colleges within the University of Minnesota. For fifty years, GC has served as an educational laboratory within a major research university. The laboratory focus has been to develop instructional methods for non-traditional students. The TRIO/Special Services Program's goal is to provide services which help to prevent non-traditional freshmen from becoming victims of the "revolving door" syndrome; that is, entering and leaving college before achieving any success in higher education. This is the second year of the program's existence.

The TRIO/Special Services Program has four components.

1) The Integrated Course of Study is a group of courses taught by General College faculty and counselors designed to be taken concurrently. These courses include a Survival Seminar course, which concentrates on study skills, career planning, and stress management; a writing lab; math courses; and courses in areas such as urban problems, arts and psychology. Educational counseling and tutoring are also included in the Integrated Course of Study.

2) Counseling Services are available for students to receive assistance in dealing with educational, vocational and personal concerns.

3) Tutorial Services are available, with individual tutors, to aid students with the development of their reading and writing skills.

4) The Summer Institute is available for entering low income freshmen during the summer prior to their first fall quarter. These students are not included in this evaluation.

1981-82 Academic Year TRIO/Special Services: Student Demographics and Outcomes

During the 1981-1982 academic year, TRIO services were utilized by 252 students. Based on a student survey collected in Fall '81 and again in Spring 1982, the TRIO students were found to be older than average college freshmen (mean TRIO age = 22.87 versus mean GC beginning student age = 20.4). A higher percent of TRIO students received financial aid than the beginning GC population (86% TRIO versus 48% GC). The majority of TRIO students had been out of school longer than one year prior to enrolling in General College (51%) with 17% having been out of school for more than six years, compared to only 31% of GC beginning students out of school for more than 1 year and 6% for more than six years (Romano, 1982). The TRIO student population also included a greater proportion of minorities than the General College population (33% TRIO, 23% new GC students), and a higher proportion of disabled students (9% TRIO, 5% new GC students).

New TRIO students also scored lower on the General College Placement Test, averaging at the forty-sixth percentile on Written Expression, thirty-seventh percentile on Reading, forty-fourth percentile on arithmetic, and twenty-fourth percentile on Whole Numbers using 1980 General College norms (Brothen, et al, 1981).

When compared to a low income control group who did not receive special services but had a similar demographic profile, TRIO students obtained higher grade point averages (GPA) for the academic year (TRIO GPA = 2.78, Control GPA = 2.61, N's excluded; TRIO GPA = 2.53, Control GPA = 1.89, N's included).

Secondly, TRIO students were more likely to stay in school (Fall '81 to Spring '82) than the control group (81% versus 72%, respectively) and they passed a higher number of credits that they attempted (84% TRIO versus 70% control) during the 1981-82 school year.

On one factor contributing to academic success, self esteem, TRIO/Special Services students began the year with higher self esteem than the control group, and by the end of the year, they had larger gains in self esteem.

When TRIO/ICS students were asked to complete a student satisfaction survey, they supported the TRIO staff and program and felt they had been able to stay in school as a result of their participation.

Also presented in this evaluation are case studies of two TRIO students, exit reviews of ICS students, course evaluations, a special evaluation of sign language classes and hearing impaired students, and a brief description of the Summer Institute, which is being evaluated during the 1982-83 academic year.

Second Year Follow-Up: 1980-81 TRIO/Special Services Students

While TRIO students were more successful than would have been anticipated during their first year at the University, the 1980-81 TRIO students did not fare as well during the second year when they were not receiving services.

In fact, although more TRIO students entered school for a second year than the control group, similar numbers completed the year, received similar (though slightly lower) grades, attempted and completed a similar (though slightly fewer) number of credits when compared to the low income control group.

Even though these statistics do not try to account for students transferring to other institutions, the evidences seem to indicate that special programs may need to be ongoing rather than short term if the positive results in the first year are to be maintained.

Summary

The 1980-81 and 1981-82 TRIO/Special Services students began college with several handicaps to academic success. They had limited basic skills, low income, and were from non-traditional backgrounds. However, a higher percentage of the TRIO students stayed in school, completing a higher proportion of credits than the low income control group, and maintained GPA's similar to, or higher than, the control group. The TRIO/Special Services students also ended the year with higher self esteem, and ICS students endorsed the TRIO/Special Services Program and believed it to be beneficial to them.

For second year students, the positive effects were only visible in the greater number of students attending each quarter than the control group, though not showing higher grades, credit completion or overall retention.

CHAPTER I

HIGHER EDUCATION PROGRAMS FOR NON-TRADITIONAL STUDENTS: A REVIEW OF RESEARCH AND EVALUATION LITERATURE

Introduction

The following literature review focuses on special programing in post-secondary institutions designed to promote academic success for non-traditional students. A non-traditional student is broadly defined as any student who differs from the historically typical freshman: an eighteen year old, single white male, who is entering college immediately after graduation from high school. Special programs usually focus on providing services for subsets of this population, including programs for minorities, handicapped students, educationally disadvantaged, veterans, and older students. The broad population of non-traditional students has also been referred to as "high risk" or "disadvantaged" students, emphasizing a perceived lack or deficit within the student. In the present review, the term non-traditional student is preferred to "high risk" and "disadvantaged" due to its more neutral and inclusive orientation. However, when describing specific programs, the terms used by program staff will be used.

The purpose of this review is to describe the program components from the full range of special programs for non-traditional students, summarize evaluation efforts, examine particular techniques used, and make recommendations for implementing successful programs based upon these observations. The primary questions of interest are: What kind of programs exist, and what has proven effective in promoting academic success for non-traditional students.

Background

Historically, minorities have been underrepresented in higher education. In 1965, it was estimated that less than forty percent of culturally disadvantaged children with measured IQ's of more than 110 entered post-secondary institutions (Blair, 1965). Educators have long noted the human resources wasted or lost through unequal access to higher education, and through failure of many of those minorities who were able to find their way into post-secondary education (Alger, 1971). At the time in history prior to 1968, only a fundamental change in recruiting and admissions practices would serve to change the educational balance (Blair, 1965; Bracy, 1971; Bowers, 1972). Once the admissions procedures were altered to open education to non-traditional students, institutional and curricular changes would be unavoidable (Blair, 1965; Menzel, 1969; Woodlands, 1978).

In 1968, just such a change took place with the passage of the Federal Higher Education Amendment. This amendment provided funding for special services for disadvantaged students. Most of the programs existing today originated as a direct outgrowth of this amendment (Church, 1973). This new reality also stems from the need for public and private institutions alike to compensate for declining enrollments by admitting students who had been previously considered underprepared and unsuited for higher education (Hays, 1980).

Many barriers existed to welcoming these new students. Financial aid was and continues to be a necessity for non-traditional students. Faculty attitudes toward the practicality of teaching underprepared students and the need to develop new instructional practices and programs to meet new demands were substantial and often negative. Finally, a reluctance to lower academic standards became a grave institutional concern (Rosner, 1970). Resolving these barriers called for greater effort in terms of energy, financial resources and support and training of administrators and teaching staff (Morrison, 1973).

A 1975 national evaluation of federally funded special services programs found that 14 percent of all enrolled undergraduates could be considered disadvantaged, with considerable variability among percentages in different types of colleges and geographic regions (Davis, 1975). The question of whether access should be allowed to non-traditional students no longer seems appropriate. The question that educators are now challenged to answer is: How can we provide the best possible programs for all students?

Defining the Population

Somogye and Draheim (1976) have isolated thirteen types of non-traditional students:

1) students who were not successful in high school,
2) students who interrupted their education by one or more years prior to enrolling in higher education,
3) students without occupational goals,
4) part-time students,
5) students attending school because of job-related pressure,
6) older students,
7) housewives,
8) divorced or widowed women,
9) students who were previously suspended from other institutions,
10) returning B.A. students who have already completed a degree,
11) students who have not completed high school and may or may not have received a GED,
12) students who need large financial aid, and
13) students supported by rehabilitation funds.

The length of this list alone attests to the diversity of non-traditional students. Other students not mentioned include veterans, single parents, all handicapped students (physical, emotional, and learning disabilities), and foreign, English-as-a-second-language students, and educationally deprived students.

Barriers to Success

All of these groups of students and the individuals within them have unique needs and barriers to success in higher education. Dill (1976) identified five problems common to all students in adjusting to college life. They include problems in:

1) attending school on a regular, disciplined basis,
2) developing a personal system of rewards and punishments which becomes internalized,
3) developing self-imposed standards of excellence,
4) diagnosis and analysis of problems, constructing workable problem solving methods, and
5) defining goals in concrete, measurable ways.

Special barriers for non-traditional students include concerns about success in school (Berry, Gordon, 1977; Strader, 1974), cognitive style (Alston, 1972), need for financial support (Morrison, 1973), adjusting to a new culture and set of values (Alston, 1972), language and communication problems (Gordon, 1969; Algier, 1971), low self image (Fagin, 1976), low expectations of self and low expectations by faculty (Fagin, 1976; Spickelmier, 1973), architectural barriers (for physically handicapped) (Fair, Sullivan, 1980), low motivation (Morrison, 1973), family responsibilities (Algier, 1971; Dispenzieri, 1971), few racial role models in faculty positions (Miller, 1977), poor academic and study skills (National Academy of Science, 1977; Bell, 1969; Dispenzieri, 1971), and lack of institutional support (Morrison, 1973). Some problems are caused by participating in special programs themselves, such as concerns about being set apart from other students, anxiety associated with needing special help, taking non-credit classes, and concerns about depth and pace of instruction (Hampton, 1979). It is helpful to remember these barriers when designing programs and providing services for these special populations.

Non-Traditional Students as Learners

When trying to understand non-traditional students in an effort to design programs which are responsive to their needs, one of the first questions that comes to mind is: What do researchers know about non-traditional students and how they may differ as learners from traditional college students (Borland, 1973; Blair, 1963)?

Several factors are known to affect learning, such as sex, years since attending high school, age, educational level at the time of admission, and numerous environmental factors (Grant, Hoeber, 1978). Awardy and Chafin (1980) have recently identified three different types of underprepared learners: the resilient learner, the reluctant learner, and the naive learner. The *resilient learner* has limited academic skills, but has sufficient confidence and perseverance to acquire the skill necessary to succeed, in spite of years of failure. *Reluctant learners* also have limited skill, but their confidence has been negatively affected by repeated failure in academic settings, and they are unwilling to take the risks unavoidable in acquiring new skills. The *naive learner* has limited skills but has somehow managed to escape detection. They are those students who have "gotten by" in school and have been rewarded for less than adequate skills, resulting in false notions about their academic competence. These students must first be convinced that they are lacking in some of the skills required to do college level work. Some educators and researchers argue that disadvantaged students do not differ significantly from advantaged students as learners (Blair, 1965). Borland (1973) holds that these non-traditional students differ from traditional students only in that they have deficient academic skills.

This question cannot be answered here, but its implications are widespread. If disadvantaged students do not differ from traditional students in the way they learn, then a technology of accelerating their development so they can get on with the business of higher education is all that is required. If non-traditional students do differ as learners, we must discover what they are like in order to plan effectively (Borland, 1973).

Identifying Student Needs and Predicting Success

According to Adolphus (1977), testing is the essential tool in student-centered developmental education. Tests of basic skills can be used to identify specific weaknesses of students. Testing also has been used to aid in predicting student success. Achievement tests have been used alone (Lunneborg, 1970; Pedrini, 1977) and in concert with: 1) *demographic variables* such as age, ethnic background, and sex (Rossman, 1975), 2) *non-intellectual measures* such as personality characteristics (Spack, Stout (1969; Brown, 1967), 3) *past achievement* - high school rank and high school GPA (Rossman, 1975; Shaffer, 1973), and, 4) *environmental factors* such as number of credits taken, scholarship money and number of hours spent in outside employment (McDonald, McPherson, 1975) to predict success in higher education.

All of these variables were shown to aid in predicting college success. Stanley (1971) and Bowers (1971) found that traditional predictors of grade point average work just as well for disadvantaged students. Persistence in college can be better predicted from test scores for specific students than GPA (Hall and Coates, 1971). Once in college, college GPA proves to be a powerful predictor of persistence in higher education (Pedrini, 1977).

Adolphus (1977) called for a higher morality in using testing both as a predictor of success and as an aid in detecting special needs and matching resources to those needs. This higher morality can be obtained, first, by observing the rights of those being tested, by using valid tests, and finally by using the test findings in a positive and sophisticated manner. It was further recommended that faculty members be involved in designing activities in the classroom to serve the specific needs identified through diagnostic testing (Adolphus, 1977).

Now that the program population has been described, barriers to success identified, and the role of testing examined, the remainder of this review will focus on describing programs, the roles of instructors and students, techniques used, summarizing the results achieved, and making recommendations for future programing.

Program Descriptions

Special programs vary considerably from institution to institution as a result of differences in populations served and the existing services available to students. The two most common approaches are remedial based instruction and cultural differences programs (Harcleroad, 1971). Virtually all programs had increased student retention and academic success as their primary goals (Davis, 1975).

The following constitutes a summary of combined program purposes and functions, listed in general order of prevalence:

1) academic and communication (reading, writing, speaking and listening) skills development (Mares, Levine, 1975),
2) develop study skills (Mares, Levine, 1975),
3) respond to indivdual needs for personal understanding and encouragement (Mares, Levine, 1975),
4) foster positive growth in self concept (Church, 1973; Green, 1977),
5) provide a buffer between students and bureaucratic environment (Jackson, Depuyat, 1974),
6) provide information about educational and career alternatives (Giroux, 1973; Church, 1973),
7) increase personal problem-solving skills (Church, 1973),
8) provide information and referral services concerning financial aid, legal services, day care and other agencies (Dispenzieri, 1968),
9) improve social skills (Bucklin, 1970), and
10) broaden and strengthen cultural experiences and values (Dreyfus, 1979).

The services provided in an effort to achieve these purposes also vary. Davis (1975) identified the most commonly occurring services in federally funded programs for non-traditional students as: remedial instruction, counseling, tutoring, and ethnic-related activities. Less frequently mentioned services include: summer programs prior to the freshman year, support seminars where students work on study skills, problem solving, time management, career planning, and information is provided concerning financial aid and other institutional services (Zanoni, 1981). Special services are also provided for handicapped students.

In a national evaluation of special services, Coulson (1981) found with few exceptions the average participation time spent in any particular service was not lengthy. Students spent a respectable average of 16.6 hours in special instruction, but only 2.6 hours in counseling, 1.5 hours in orientation and 4.5 in cultural activities. In general, program staff feel that the "teaching relationship with minority group students must be a highly personal matter in order for effective learning to take place (Mares, Levine, 1975)."

Role of the Instructor

Spickelmier (1973) surveyed community college faculties and found that they expressed reluctance and non-responsive attitudes toward teaching low ability and underprepared students. They preferred separate remedial courses for these students rather than individualizing their own courses. Spickelmier suggests that the contact faculty had with non-traditional students is affected by those attitudes. The major complaints leveled against faculty by students were their lack of commitment to the teaching task, inaccessibility to students, and poor teaching skills (Nosen, 1980). For disadvantaged students to be successful in higher education there must be a concerted effort by administrators and instructors to create an environment which is conducive to learning for all students, or at the very least, exhibit a willingness to do so (Bracy, 1972).

Bloom (cited in Awardy, Chafin, 1980) has presented a model for an expanded role of instructors which includes instructor responsibility for a systematic on-going evaluation of students, matching them with appropriate teaching techniques, facilitating participation and reinforcing learners. Their progress must then be assessed and corrective action taken in instructional techniques, re-starting the cycle of evaluation and continued modification of approaches until the desired result is achieved.

To facilitate this expanded role of the instructors, several support features are encouraged. First, instructors must have flexible time to accommodate the variable rates of student learning requiring attention to group size and the facilities available to instructors. Secondly, to aid in assessment of student skills, norm referenced and criterion referenced testing must be available to provide diagnostic information, to measure progress, and to make mastery/non-mastery decisions. All of these features require profound instructor skill, student participation and administrative support (Awardy, Chafin, 1980).

Jennings (1974) made several recommendations for improving the training of teachers for work with disadvantaged students in secondary education. The programs shoud last at least two years, and all prospective teachers should be required to participate in workshops, courses and seminars and a variety of experiences actually working with disadvantaged students. Cleveland State University instituted a 40-week program for training instructors and counselors (Bureau of Higher Education, 1971). This program focused on four major areas, requiring that instructors/counselors had a knowledge of a major field of study, understood the characteristics of disadvantaged underachievers, basic instructional theory, and information on individual approaches to learning. An evaluation confirmed the success of this approach.

At the institutional level, Hogges (1979) proposed that violation of civil rights and affirmative action laws present messages to minorities and women. Both teachers and administration must be aware of deep-rooted attitudes which may affect their treatment of minorities in the classroom and in academic advising.

Role of the Student and Self Concept

One of the most powerful factors affecting behavior is the conviction an individual has that he or she can successfully perform a behavior that will produce a desired result. More simply put, one of the main reasons we do things is that we think we can. Students will register in school if they believe they can be successful. Students will stay in school if they believe they can continue to succeed. Repeated exposure to success strengthens the conviction an individual has that he or she will be successful in the future when performing that particular behavior. Repeated exposure to failure strengthens the conviction an individual has that he or she will be unsuccessful in the future when performing that particular behavior. These notions represent the theory of self-efficacy as outlined by Bandura in 1977.

Self-efficacy refers to the opinions people possess about their personal effectiveness, and self esteem is the degree to which people like and respect themselves. Both of these concepts have important implications for how successful students will be, and whether or not they will stay in school. For this reason, many special programs make conscientious efforts to raise self esteem and self-efficacy in their students through the use of creative writing courses, tutoring, counseling, mastery approaches to learning and special programs (especially those based on ethnic pride and peer support groups) (Zirkel, 1972). The efforts that have been evaluated with respect to raising self esteem showed evidence of positive change across time and subjects and a positive relationship between self esteem and academic success (McCormick, Williams, 1974; Zirkel, 1972; Read, 1981).

The student's role in achieving academic success must be grounded in the very basic and essential conviction that he or she is actually able to succeed in college and is willing to do what needs to be done to insure that success.

Instructional Methods

Many educators and researchers have presented the notion that it is the responsibility of educators to provide course structures and educational technologies which produce the maximum educational value for students (Beaman, Diener, Fraser, Edresen, 1977). Students and educators alike have started to question tradtional methods of teaching in universities, and they call for more innovative structuring of courses.

In recent years, the most innovative university programs have been based on programmed instruction (Beaman, et al., 1977). These courses usually include course materials which are subdivided into many well-defined steps. Testing is frequent and studying is maintained by positive reinforcement of desired behavior. One of the drawbacks associated with self-paced instruction is a greater cost associated with test grading and record keeping (Beaman, et al., 1977). Cartwright (1971) advocates the use of analysis of individual learning styles in teaching, but cautions against being taken in by commercially packaged programmed materials as a substitute for personal attention. Woodland (1978) recommends several instructional techniques for non-traditional students (including individualized instruction), such as independent study classes, academic credit for life experience related to work or home, and the use of learning contracts. Another method which appears to be well suited for non-traditional students is cooperative education (Knowles, 1971). Cooperative education involves a combination of periods on campus in classroom instruction with periods of time spent in off-campus working experience. This is amenable to minorities because it provides an opportunity to experience a new environment and to be exposed to a real employment setting within an unusually patient and supportive climate. These factors aid in reducing fear of employment and aid students in establishing contacts that mey be invaluable in their search for future employment.

The methods discussed here represent general approaches to instruction. More specific techniques will be discussed further in the section entitled Study Skills.

Basic Skills: Remedial Education

In 1977, the National Assessment of Educational Progress reported that nearly half of seventeen year old high school students cannot read college freshman materials or perform basic math (Grant, Hoeber, 1978). Thus, the population of students requiring training in basic skills has expanded to include more than just the "disadvantaged" students. This is evidenced by the downward national trend in college entrance examination scores. Crawford (1979) suggested that there has always been a need for basic skills programs, but the cost associated with this activity has given rise to objections by many institutions in this time of financial uncertainty. Basic skills programs, however, are no longer an option but a necessity in most public and private institutions.

Grant and Hoeber (1978) reviewed basic skills programs with respect to the question: Are these programs working? They answered the question in two ways: Yes, the staff involved in delivering the programs are "working" very hard, but they were unable to make generalizations about the success of those programs due to the scarcity of empirically based evaluation research available at that time. Since the time of their research, many programs have conducted evaluation research. Before looking at the overall evaluation findings, the individual components of skill programs will be addressed.

Reading for Non-traditional Students

In one basic reading laboratory, several objectives were outlined (Schiavone, 1976). First, students need to develop the ability to comprehend the literal meaning of written material and materials at varying levels of difficulty at the most efficient rate. Then students need to develop an ability to find broader meaning in a written work and the ability to judge the accuracy and relevancy of what is read. They must also become able to realize the relative importance of statements, the logic behind them and the validity of the conclusions (Schiavone, 1976).

The specific reading skills which are developed in the reading laboratory are:

- speed of perception and reading rate,
- vocabulary development,
- increased comprehension,
- intensive and thorough reading,
- reading as a study skill,
- understanding broader meanings,
- skimming and scanning,
- how to evaluate the quality of writing,
- reading within a subject matter, and
- reading technical materials (Schiavone, 1976).

Spickelmier (1972) recommends that students who are poor readers enroll in special reading classes, because faculty members are often unwilling to become teachers of reading. While national reading scores have declined in the past twelve years, students in remedial classes have been able to gain two years reading level on the average from a special reading course (Reinertson, 1978). Students already reading at a college level were able to nearly double their speed and improved vocabulary and comprehension significantly through the same remedial instruction (Reinertson, 1978).

Writing for Non-traditional Students

Shaughnessy (1978) has identified three types of writers among non-traditional students: those who appear from tests to be competent readers/writers and meet all the traditional entrance requirements; those who "got by" in high school, but would never write voluntarily, whose style is characterized as flat and utterly predictable; and, finally, those left so far behind as to seem to be visitors from some distant planet.

For the students who enroll in basic writing programs, Shaughnessy gives some precious insight into the way they view writing:

> For the BW (Basic Writing) student, academic writing is a trap, not a way of saying something to someone. The spoken language, looping back and forth between speakers, offering chances for groping and backing up and even hiding, leaving room for the language of hands and faces, of pitch and pauses, is generous and inviting. Next to this rich orchestration, writing is but a line that moves haltingly across the page, exposing as it goes all that the writer doesn't know, then passing into the hands of a stranger who reads it with a lawyer's eyes, searching for flaws.

Several models have been proposed for coping with these barriers to success. First, writing is viewed as involving developmental stages which are specific to each student. Therefore, writing programs must be designed to challenge individuals at various levels of development (Moore, 1977). A laboratory approach has evolved to include both structured and unstructured writing activities with time devoted to individual tutoring and the use of peer evaluation in preparing assignments (Moore, 1977; Shaughnessy, 1978). This approach discourages the goal of producing the "perfect" paper, but looks toward goals in notion, based on revision, renovation and revolutions, the three R's (Moore, 1977).

Penfield (1979) described a writing program based on proficiency testing using standards agreed upon through faculty consensus. Courses are taught with teacher and students working toward the common goal of mastering the test. Here, the expectations are focused on success. This type of program resulted in higher standards, but more students passed the course than before the proficiency test was instituted.

Both of these approaches are, in varying degrees, in line with recommendations made by Bloesser (1968) to develop remedial writing programs which test and diagnose students, meet individual needs, maximize the effectiveness of each instructor, and provide for continuous counseling and evaluation of students.

Mathematics for Non-traditional Students

A survey of 134 academic programs for disadvantaged students revealed that mathematics and quantitative skills are generally not emphasized in these programs (Mare, Levine, 1975). Those stressing remedial math found that individualized instruction beginning with tests and directing students to instructional units as needed produced positive results. Students liked this mode of instruction, more finished the course and received higher scores (Gunselman, et al., 1971). Remedial math instruction accompanied by math laboratories were also found to be successful (Berger, 1971).

Study Skills Programs

Study skills are procedures that are intended to directly improve reading effectiveness and efficiency (such as Robinson's SQ3R method; Champlin, Karoly, 1975) and the related academic tasks of note-taking, test-taking, and paper writing (Kirschenbaum and Perri, 1982). In a review of twenty-two study skills courses, Entwisle (1960) found that study skills courses are all followed by some kind of improvement, varying from very slight to considerable amounts. Motivation, as indicated by the desire to enroll in a study skills course, is an indispensable ingredient for achieving any significant improvement. Motivation alone, however, is not sufficient to produce improved grades unless it is accompanied by actual participation in a study skills course (Entwisle, 1960). This is related to the finding that gains in study skills are not necessarily related to the content or duration of the course. It appears, then, that it is not enough for a student to simply want to take a study skills course. Once enrolled, however, the content and duration have little impact on how much improvement takes place.

Kirschenbaum and Perri (1982) state that mastering study skills is an arduous task which seems to be facilitated by controlling certain motivating factors (or setting events). These events include: perceived personal control over the environment, volunteer status in the program, a technologically oriented intervention (such as behavioral modifications as opposed to study skills counseling), and positive expectations about success.

In a major literature review, Kirschenbaum and Perri (1982) found that skills programs producing the most substantial gains in performance were structured, multicomponent interventions, not particularly lengthy (3-8 hours can be effective), and incorporating study skills with self control training (i.e., training in self regulatory or monitoring skills). They proposed a three-component model for improving academic performance which includes establishing motivating environments, study skills development, and self regulatory skills development.

Study skills development focused on reading, note-taking, paper writing, test-taking and frequent studying. And finally, self-regulatory skills include: self monitoring, self evaluation, self punishment/reward system, environmental management (location of study, time of day, et cetera), planning and problem solving skills. Test anxiety is viewed as a phenomenon which may be more accurately defined as inadequate test taking skills (Kirkland, Hollandsworth, 1980).

Another technique used to produce results in academic performance was behavioral contracting, which was found to be effective in direct proportion to the student's commitment (Himelstein, Himelstein, 1977). In behavioral contracting, the student is responsible for identifying self defeating behaviors and eliminating them. Academic improvement and strength of commitment relied on the presence of immediate reinforcement. The overall effectiveness of this technique was judged as moderate in producing better grades (Bristol, Sloane, 1974).

Beaman (et al., 1981) examined the effects of peer monitoring, through the use of mutual study groups, on academic performance. They found that participation in the study groups produces positive gains in academic achievement, but that this technique is greatly enhanced by the use of a group contingency model. Here, students are assigned a partner or partners and the course grade is based on an average of the students' work. The group contingency model offers promising results; it is easy to implement, produces only a minimal increase in bookkeeping, and has a low implementation cost (Fraser, et al., 1977). As Fraser and associates put it, two, three and four heads are better than one.

This completes a look at academic skills programs and the techniques they employ. We now turn to the counseling component offered in many programs for non-traditional students.

Counseling: Role of the Counselor

Bell (1969) outlines a number of characteristics of counselors who are effective in dealing with non-traditional students. An effective counselor is: acceptant, able to approach students and be available, straightforward, honest and even blunt when necessary. Effective counseling with high risk students must begin with interpersonal skills, and then go on to create a low risk learning environment (Snow, 1977).

The major concern for non-traditional students is not basic personality transformation but the need for more immediate psychological relief in crisis situations (Amada, 1977). This calls for flexible scheduling for counselors and real accessibility through telephones or office hours. Mitchell (1970) stresses the importance of the counseling relationship when dealing with minorities. A relationship must be built on trust, focus on the here and now (not dwelling on past history), with positive regard and empathy for the student. It is also important to supply the students with definitive techniques and skills for coping with their environment (Mitchell, 1970).

Group Counseling

Group counseling is an important component of many special programs. It helps students in developing communication skills, and fosters an atmosphere of support (Dill, 1976). Group counseling has been shown to have a positive effect on self concept and the feeling of control an individual believes he or she can exert upon the environment (referred to as locus of control; Patton, 1974).

Peer Counseling

Many programs utilize peer counselors. Studies show that students develop close feelings for their peer counselors and that peer counselors provide considerable help and support for students in helping them discover adequate solutions to specific problems (Copeland, 1979; Benson, 1975). Peers were also found to function as well or better than other professional staff in fulfilling student needs (Copeland, 1979).

This completes a look at services provided by programs for non-traditional students. We will now turn to examining the evaluation efforts of specific programs to answer the question: Are special programs for non-traditional students successful?

Summary of Non-Traditional Student Program Evaluation Efforts

Programs for non-traditional students are as diverse as the students they serve. However, most of them were designed to promote academic success in terms of student retention (i.e., staying in school) and increased grade point averages. The following table represents a summary of the evaluation efforts of twenty-five programs for non-traditional students which measure outcome based on academic success (GPA and retention). All of the programs examined report positive results in either retention, GPA's, or both.

Summary of Evaluations Results in Terms of Retention Rates and Grade Point Averages (GPA) for Twenty-five Programs for Non-Traditional Students

Programs Reporting Increased Retention Rates	Programs Reporting Increased GPA's/ Academic Success	Programs Reporting Increases in GPA's/ Academic Success and Retention Rates
1) Algier (1971)	1) American Personnel and Guidance Association (1969)	1) Hall (1971)
2) Dispenzieri (1969, 1971)	2) Beham, McGowan (1976)	2) Peet, Wanner (1969)
3) Finnell, Flanders (1976)	3) Brown (1978)	3) Dudley (1978)
4) Johansson, Rossman (1974)	4) Jones, Osborne (1977)	4) Parker (1974)
5) Joyce (1980)	5) Majumder (1973)	5) Read (1982, present study)
6) Morrison (1974)	6) McAllister, Johnson (1974)	
7) Read (1981)	7) Obler, Martin, et al (1977)	
8) West (1975)	8) Ogrodnic (1977)	
	9) Quealy (1971)	
	10) Ratekin (1971)	
	11) Rayburn, Hayes (1975)	
	12) Romano, et al. (1981)	

These findings reflect only programs which conducted evaluations, reported their results, and were published in an available source, producing a biased sampling. However, it is encouraging to note the number of programs which have begun to conduct systematic evaluations and produce positive results.

Recommendations

Based on the research and evaluation presented in this review, the following general recommendations may be made for designing special programs for non-traditional students.

- Participation in programs should be voluntary.
- Programs should be multidimensional, with students receiving a full range of services such as study skills, counseling, tutoring, orientation, survival skills, and training in specific self monitoring techniques.
- The actual time spent in each service does not have to be great (3-20 hours) but should be focused on the quarter or semester of entry into higher education.
- Programing should be flexible, designed to meet the needs of students, with continuous systematic planning and feedback.
- Clearly written program objectives should be made available to students.
- Program environment should foster growth of positive self images and provide opportunities for success through the use of support groups and group counseling, peer counselors, and increased numbers of minority counselors and other minority staff to act as role models.
- Instructors should be encouraged to make use of innovative teaching techniques suited to non-traditional students such as cooperative education, individualized instruction and group contingency.

These recommendations can be taken as a summary of empirical evidence from successful programs.

CHAPTER II
TRIO/SPECIAL SERVICES 1981-82 EVALUATION PLAN

Introduction

The program evaluation for the General College Special Services Program is designed to meet three major needs. First, the evaluation provides a description of program operations, services offered and the program participants. Secondly, program effectiveness is assessed in terms of student outcomes. Finally, individual program services are examined as an internal feedback measure, aiding in the initiation of program changes and improvements for subsequent quarters.

Program Description

The program description outlines the goals, organization and services offered by the Special Services Program at General College. This section is included in order to familiarize the reader with the program and set the stage for the evaluation.

Student Demographic Profile

The student demographic profile describes the population of the students in each program component in terms of race, sex, educational history, academic preparedness, and a number of other variables. The students are also compared to a control group selected from General College freshmen who meet low income criteria but did not receive the Special Services Program.

Determining Program Effectiveness

Several techniques have been employed in order to determine program effectiveness. First, traditional student outcomes are examined for students in each group. These traditional measures include: gradepoint averages, credit completion (using a ratio of classes taken as compared to those completed), and overall student retention rates (which reflect the proportion of students who remain in school).

Additional measures of student outcome are reported, focusing on the growth of self esteem, changes in academic aspirations as a result of being in the program, and a self ranking of basic skills by each student at the end of the year. Again, program students are compared to the non-program control group.

The ICS students also participate in a Student Satisfaction Survey. In this way, the students are able to provide direct feedback to program staff with their feelings and ideas concerning the TRIO Program, its effectiveness, and how well it met individual needs.

Based on exit interviews with TRIO counselors, the final variable examines students in the ICS who did not remain in school and summarizes their reasons for leaving. Several individual students are also interviewed and this information is presented in a case study format.

Program Development

The program development portion of the evaluation involves specific course evaluations. These evaluations will aid staff in program development and planning.

Special program components will be examined, in particular the Summer Institute and sign language classes and hearing impaired students.

The Special Services evaluation includes a wide variety of techniques and methods. Hopefully, the collection of diversified information, when drawn together, will provide a broad basis allowing for more consistent and valid conclusions.

PROGRAM EVALUATION

Need	Goal	Method	Criteria for Measuring Achievement
I. Introduction: What are Special Services?	A. To provide a review of current programs and evaluations B. To provide a history of special programs for nontraditional students	A. Review of literature	Included in final report
II. Describe program	To describe: A. Integrated Course of Study B. Counseling services C. Tutorial services	A. Interviews with staff B. Observe classes/seminars	Final product will be reviewed by program staff and included in final report
III. Describe student participants	Describe program participants	Collect and summarize data from individual students: A. General College Student Survey B. General College Placement Program Scores C. Income Information	Compare TRIO/Special Services students to low income control group
IV. Determine program effectiveness	A. Compare program students with group selected from similar background from General College on traditional academic measures: 1) Grade point average 2) Credit completion ratio 3) Retention rate 4) General College Comprehensive Admission Test	A. Collect and analyze data (pre/post tests)	Compare TRIO/Special Services students with low income control group
	B. Determine student non-academic growth (self concept)	B. Administer student self concept questionnaire and readminister selected questions from G.C. student survey	
	C. Determine student satisfaction with program	C. Administer Student Satisfaction Survey	
	D. Conduct exit interviews	D. Exit interviews with counselors	
V. Provide data for program development	A. Conduct course evaluation	A. Standardized Course Evaluation form	Data will be used as an internal feedback mechanism to initiate program changes and improvements in subsequent quarters.

CHAPTER III
PROGRAM DESCRIPTION

Introduction

The Special Services Program at the University of Minnesota was first provided for by a federal grant in September of 1980. It is one of the TRIO programs (Special Services, Talent Search, and Upward Bound) which function jointly to promote higher education for students who have previously had limited access to higher education. These students include minorities, physically handicapped and low income students as well as the educationally disadvantaged. The General College TRIO/Special Services Program serves primarily freshmen during their first year of college.

Program Goals

This year the continuing goals of the TRIO/Special Services Program are to:

-- offer an opportunity for disadvantaged students to develop the skills necessary to survive in a university setting,
-- promote educational success,
-- provide a creditable academic program,
-- provide a supportive atmosphere and reduce stress inherent in post secondary education,
-- aid students in making educational and career plans, goal setting,
-- help students to become aware of university and community resources and how to use them, and
-- heighten awareness of General College staff and faculty of hearing impaired students and increase staff communication skills by offering staff sign language classes.

Organization

In order to accomplish these goals during the academic year, TRIO/Special Services offers three program components to eligible students, each with varying degrees of intensity based on student needs. The Integrated Course of Study (ICS), the most intensive component, consists of a set of pre-selected courses which are supplemented with individual tutoring, a Survival Seminar which emphasizes basic skills, study techniques and provides regularly scheduled academic and personal counseling.

The two less intensive program components are Counseling and Tutoring which are available on a walk-in or appointment basis. The Summer Institute provides services for the same population of students during the summer prior to their freshman year. It is described in greater detail in Chapter IX.

INTEGRATED COURSE OF STUDY

The Integrated Course of Study offers several carefully selected courses each quarter. The Survival Seminar (described below) is required each quarter as well as two additional ICS classes. All ICS courses have tutors assigned to them, so that ICS students receive as much intensive help as they need. Students may also take optional or elective courses. Virtually all of these courses transfer to other colleges and majors.

The following listing presents course descriptions (adapted from the General College Bulletin, course syllabi, and other General College brochures - see reference notes) for the courses offered each quarter, as well as a list of optional courses.

Fall Quarter

1. Urban Problems (5 credits, course number 1212)

   Using problem-solving, interdisciplinary approach, students examine some major urban problems such as social class and proverty, social change, crime, and education. It is hoped that each student will obtain the information, insight and improved ability to reach intelligent, independent, viable conclusions and act on them in public and private life.

2. Communication Skills: Fundamentals of Usage and Style (3 credits) course number 1411)

   Students practice principles of grammar, usage, and style through exercises and writing sentences and paragraphs.

3. Writing Laboratory: Personal Writing (4 credits, course number 1421)

   Students read and write descriptive narratives, characterizations and autobiographical sketches. Personal help with individual writing problems is provided. The course emphasis is on clear and effective written expression.

4. Writing Laboratory: Communicating in Society (4 credits, course number 1422)

   Primarily through expository writing, but also through reading and discussion, students analyze how people communicate in society: how they perceive events, how they think about them, and how they write and talk about them.

5. Mathematics Skills Review (5 credits, course number 1434)

   This is a course designed for students who have limited math backgrounds and wish to enhance existing math skills and eliminate deficiencies. Topics include fractions, decimals, percents, signed numbers, metric system, scientific notation, ratio and proportion, formulae and simple graphs.

6. Elementary Algebra (5 credits, course number 1435)

   Basic concepts and manipulative skills of algebra are introduced in preparation for college algebra courses. A strong math background is required. Topics include sets, properties, signed numbers, equations, word problems, inequalities, graphing, polynomials, factoring, fractions, and radicals.

7. Survival Seminar (2 credits, course number 1702)

   Successful completion of academic work in a highly competitive University environment requires the acquisition of a specialized body of skills and information. This course is designed to develop the basic academic skills of entering freshmen and provide the information essential to their retention of information from lectures and texts, improve their performance on exams and written assignments, learn to cope with standard University procedures, and obtain information on the campus and community resources available to support their efforts. Regularly scheduled small group and individual counseling is required.

Winter Quarter

1. Psychology in Modern Society (5 credits, course number 1281)

   Introduction to science of human behavior. Topics include analysis of research methods used in observing and drawing conclusions about behavior, development of behavior, human biological and social motives, place of emotion and conflict in human adjustment, how the individual perceives the environment and learns from it, and psychology of behavior in groups.

2. Special Topics: Concepts of College Science (5 credits, course number 1138)

   This course lays the groundwork for future classes in science. It has been developed for students with limited science or math backgrounds. One college course in basic math is a prerequisite.

3. Writing Laboratory: Personal Writing (4 credits, course number 1421)

   See Fall Quarter

4. Writing Laboratory: Communicating in Society (4 credits, course number 1422)

   See Fall Quarter.

5. Elementary Algebra (5 credits, course number 1435)

   See Fall Quarter.

6. Intermediate Algebra (Part I, 3 credits, course number 1443)

   A slow-paced intermediate algebra course for students who have good background in elementary algebra. The topics include sets, real numbers, linear equalities, linear inequalities, polynomials, rational expressions, exponentials, and roots.

7. Survival Seminar II (2 credits, course number 1703)

   Continuation of 1702, see Fall Quarter.

Spring Quarter

1. Art: General Arts (4 credits, course number 1311)

   Examines representative works of art from genres of painting, sculpture, architecture, literature, and music to discover how and why art is created and to enable students to formulate ideas and attitudes about it.

2. Writing Laboratory: Communicating in Society (4 credits, course number 1422)

   See Fall Quarter.

3. Creativity: Writing Laboratory - Individual Writing (4 credits, course number 1484)

   Work on individual writing projects. After a study of techniques of description and narration, participants write sketches, short stories, informal essays, poems or dramatic scripts, as their interest directs them and as instructor permits.

4. Writing for Business and the Professions (4 credits, course number 3531)

   Students write letters, informal and formal reports, recommendations, proposals, summaries, memos; i.e., forms of writing used in business; in health, education, and welfare; and in legal professions. Content adapted to vocational needs of students enrolled. Form, clarity, economy of expression, and suitable tone stressed. Typed final drafts required.

5. Intermediate Algebra (Part I, 3 credits, course number 1435)

   See Winter Quarter.

6. Survival Seminar III (2 credits, course number 1704)

   Continuation of 1702 and 1703. See Fall Quarter. This Survival Seminar incorporates career planning into its basic curriculum.

Optional Courses

1. Science in Context: Human Uses of the Environment (5 credits, course number 1112)

   This course focuses on the study of ecology as applied to aspects of our past, present, and future existence; application of biological principles and interrelationships between the individual and the environment. Principles of ecology are explored, including the structure and function of ecosystems; pollution of soil, water, and air resources; population explosion, and relationship of people, disease, food production, environmental controls to survival.

2. Career Planning (2 credits, course number 1502)

The career workshop is designed to assess a student's interests, abilities, needs, values, and personality through testing and subjective self-exploration. Occupational information is provided through computerized system and other printed materials. This course is for students who are undecided about their future career choices and those who need to confirm a tentative career choice.

3. Literature: Reading Short Stories (3 credits, course number 1371)

Representative short stories by American, British and continental writers are discussed, and how individual writers have used the form of the short story to express their ideas about human experience.

4. United States: Law in Society (5 credits, course number 1235)

The role of law in our changing society is examined. Topics include courts and court system, corrections, police-community relations, environmental problems, domestic problems, wills and probate, and insurance. When possible, students may visit courts, correctional institutions or similar institutions.

5. United States: The Crime Problem (4 credits, course number 1236)

The nature and extent of crime in America is discussed in addition to the causes and consequences of crimes for criminal, victim and social order.

6. Oral Communication: Interpersonal Communication (4 credits, course number 1465)

Students examine their own communication patterns - verbal, nonverbal, and vocal - and try to discover why they are effective or ineffective communicators, to uncover some origins of their communicative behavior, and to understand means we use to relate to each other and ways we alienate ourselves from each other. The course asks students to begin or deepen their search for identity and to aid others in their search.

7. Literature for Children (4 credits, course number 1363)

Survey of children's literature. For parents, prospective parents, or child-care workers who wish to become acquainted with children's literature and to guide children in selecting and reading books or for others who may not have had an opportunity to read books - including classics - when they were children.

COUNSELING

Counseling for Special Services students is made available off campus through the Center for Higher Education for Low-Income Persons (H.E.L.P. Center). The H.E.L.P. Center provides the following services for this special population of students:

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--academic counseling

--counseling

- financial
- personal
- family
- chemical dependency

--tutorial referral and assistance

--advocacy

--legal assistance

--program planning

--contact for community, private and public agencies

--resources for discovering additional funds

--space for students to meet, study, plan and develop peer groups

--groups for career orientation, parentage and survival in the university.

Professional individual or group counseling and psychological counseling are also available for more conventional academic needs through the Counseling and Student Development Division of General College.

TUTORING

Tutoring is provided at the Reading and Writing Skills Center where tutors assist students with writing papers, reading, filling out forms, improving vocabulary or spelling, learning note taking skills and library research techniques. Students may also complete academic courses in a self paced, individualized mode at the center. Writing and math tutoring is also available at the H.E.L.P. Center in conjunction with the Math Department and writing instructors.

The center is open during school hours and no appointments are necessary.

CHAPTER IV
STUDENT DEMOGRAPHIC PROFILE

Introduction

The following section provides a summary of demographic information for the students in each of the three TRIO Program components: Integrated Course of Study (ICS), Counseling and Tutoring groups. In order to provide comparative data, a control group was selected from low income General College students, and these students are also described in this section. TRIO students are also compared to all entering GC students (Romano, 1982).

Method

As a part of the routine General College orientation process, the following information was collected for each student:

1) General College Placement Program (mandatory) is a battery of tests primarily used for placement and planning purposes. It includes five sections, two dealing with language and three with mathematics, as follows.

   a. Reading Placement Test

   This test is distributed by the Comparative Guidance and Placement Program of the College Board (Educational Testing Service, 1977) and consists of eight passages with associated questions regarding the content. The test focuses on reading comprehension, inference-making ability, and vocabulary in context. It is normed on more than 30,000 students from primarily two year institutions of higher education and vocational education across the country (ETC, 1977).

   b. Written English Expression Placement Test

   This test concerns sentence structure and the clear, logical expression of ideas (ETS, 1977). It is also distributed by ETS and normed on the same group of students described above.

   c. Mathematics Test: Whole Numbers Subtest

   This test consists of seven items which require the performance of addition, subtraction, multiplication, and division using whole numbers only. The mathematics test was developed at General College and is normed on General College students (Brothen et al, 1981).

   d. Arithmetic Subtest

   This test includes twenty-five items and requires the same operations (addition, subtraction, multiplication and division) using whole numbers, fractions, decimals and percents. This test was developed at General College and norms were established for GC students (Brothen et al, 1981).

e. Algebra Subtest

This test consists of twenty questions which require the student to solve elementary algebraic equations and inequalities, use negative integers, and find the slope of a line. This test was also developed at General College and normed on GC students (Brothen, et al, 1981).

2) General College Student Survey (GCSS)

The General College Student Survey is a basic intake form which asks students for demographic information such as age, sex, ethnic background. Several additional questions ask students about educational, personal, and career planning services they may need.

Since a number of students do not attend the full two-day orientation during which data are collected, many students did not complete the General College Student Survey. For that reason, another attempt was made at the end of the academic school year to have students complete this form. The end-of-the-year data were combined with the earlier data to arrive at the information reported here. Even with this follow-up measure, the percent completion rate for each group ranged from 53 to 94 percent. (For more complete information, the number and percent responding by group is displayed in Table I.) While there is no reason to believe that respondents differ from nonrespondents, the summary comments made for these groups should be limited to those who actually completed the questionnaire.

Subjects

The subjects described in this study represent four groups:

a) ICS Students - all students enrolled in the Integrated Course of Study (ICS) were asked to participate in the study.

b) Counseling Students - all General College freshmen who were eligible for the Special Services Program (by low income, academic need, handicapped or minority status) and utilized the counseling facilities two or more times during the academic year, were included in the study.

c) Tutorial Group - all General College freshmen who were eligible for Special Services, and made use of direct personal tutoring two or more times were included in the study. Some of these students also received counseling.

d) Control Group - a control group of 57 students was randomly selected from General College freshmen eligible for Special Services using the low income criteria, and who had not participated in the TRIO Program or used counseling or tutoring services during the academic year.

A TRIO total is reported on each variable collected which combines the ICS, Tutoring, and Counseling groups so that TRIO students can more readily be compared to the Control group. Results are also compared to all General College entering students as presented in The General College Student, Fall 1982 (Romano, 1982). This group of students includes some students transferring from other post secondary institutions or returning students as do the TRIO and Control groups.

Results

The TRIO and Control groups varied slightly on the distribution of men and women with the ICS group consisting of more women than men (58% vs. 42%), but with Counseling and Tutoring groups including a higher proportion of men to women (56% and 61% vs. 44% and 39% men to women respectively). When TRIO groups were combined, there was little difference from the Control group (men = 51% control, 48% TRIO, women = 49% control, 52% TRIO). Compared to new General College students, both TRIO and the control group had higher than average numbers of women (GC freshmen, 55.9% male, 43.5% female). These data are displayed in Table II and Figure II.

TRIO and Control group students were both older than new GC students by 2.47 to 3.74 years (TRIO and Control group students respectively) with TRIO students mean age = 22.87, Control group mean age = 24.14 and new GC students mean age = 20.4. These data are presented in Table III, Figure III.

In the new GC student population, minority students accounted for 23% of all students. The Control group had even fewer minorities (14%) while TRIO students were almost one third minority (33%) with the Tutoring group 52% minority (Table IV, Figure IV).

Ninety-six percent of the Control group and 86% of TRIO students received financial aid, compared to only 48% of the new GC students (Table V, Figure V).

Fewer TRIO students planned to work while attending college than either the low-income Control or new GC students (60% TRIO, 74% Control, and 87% new GC students, Table VI, Figure VI).

The transfer plans for all groups seem comparable, with more Control group students planning to stay at GC than either TRIO or new GC students. The majority of students plan to transfer to another college at the University of Minnesota or elsewhere (Table VII, Figure VII).

The highest grade level completed prior to enrolling in the General College was comparable for all groups, with a slightly higher proportion of TRIO students receiving GED's (14% opposed to 6% Control and 4% new GC students) rather than graduating from high school (Table VIII, Figure VIII).

The majority of all students have been out of school less than one year prior to enrolling at GC. A higher proportion of TRIO students had been out of school for more than one year prior to enrolling (50% TRIO vs. 30% Control and new GC students, Table IX, Figure IX).

The highest academic aspirations (for degrees) appear similar for all groups (Table X and Figure X).

Parental education patterns are similar for all groups with TRIO students having slightly lower levels for both parents (Tables XI, XII, and Figures XI, XII).

There are few differences between groups on stated majors of students. An emphasis on technology and sciences is evident in all groups (Table XIII, Figure XIII).

TRIO students are more likely to report physical, emotional or learning disabilities (9% vs. 2% Control, 5% new GC students) and also more likely to require additional services for these disabilities (5% vs. 2% Control, Table XIV and Figure XIV).

On the standard battery of placement tests (General College Placement Program) given by General College and described earlier, TRIO students scored significantly lower on the reading placement test (ANOVA, α = .05), but similarly on the written expression and math tests (whole numbers, arithmetic and algebra). Based on 1980 General College Placement Program norms, both groups have low average scores (Brothen, et al, 1981). On the reading placement test, TRIO students scored at the thirty-seventh percentile (Conrol = fifty-second percentile), and both TRIO and Control groups scored at the forty-sixth percentile on the written expression test. The mean scores for the whole number and arithmetic placement test were at the twenty-fourth percentile and forty-fourth percentile respectively for both the TRIO and Control groups. Norms are not available on the algebra section of the math placement test. These data are presented in Table XI and Figure XV.

Discussion

The TRIO/ICS Program at General College serves a large number of single parents, most of whom are women receiving Aid to Families with Dependent Children (AFDC). This may account, in part, for the higher proportion of women in the program, the higher average age, the longer period of time since the students have been in school, and also the smaller percentage of working students.

Minorities and handicapped students are encouraged to participate in the program and this is also reflected in the statistics. A high proportion of Asian students and Vietnamese students are participants in the Tutoring portion of the program. This may account for some of the variance in the reading scores due to language difficulties.

A higher percent of Control group students received financial aid than TRIO students. This finding may reflect the major criterion for Control group selection, which was low income level, and TRIO program participants are also selected due to educational disadvantage, physical or emotional handicaps or minority status.

The highest grade achieved prior to enrolling in General College was comparable for all groups with ICS having a slightly higher proportion of GED's, indicating a less traditional background. Nevertheless, the academic aspirations for all groups appear to be similar. There are slight differences in parental education, with TRIO having a lower level of education for both parents, also indicating a less traditional background from other college students. As far as academic majors are concerned, all students gravitate toward more technological fields.

Finally, the descriptive information which may have the greatest import in this evaluation is the test scores on the General College placement test. These data show that the TRIO students are at a lower level than the Control group on reading, with the Tutoring group scoring lowest. The three TRIO components vary most noticeably on the math tests, with ICS scoring lowest and Tutoring scoring higher, especially in arithmetic and algebra. Both TRIO and Control group students' average placement scores are below average (median) based on 1980 General College norms (Brothen, et al, 1981), with the Control group reading mean score in the fifty-second percentile the only test mean higher than the median.

Conclusions

While few differences exist between the TRIO and Control group students are dissimilar in many ways from what is considered a typical college freshman. They are low income students who are older, more likely to be female, have been out of school longer, are more likely to be minority or handicapped than the average, and they enter college with limited basic skills. In a very real sense, these differences may work against these students in higher education. Will they, or can they, survive?

TABLE I

Number of Students Completing
General College Student Survey

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Students Who Completed Survey in Fall	86	83%	37	51%	30	39%	41	72%	153	61%
Students Who Completed Post-Survey	52	50%	27	38%	36	47%	23	40%	115	46%
Students Who Completed Both Pre and Post	44	43%	26	36%	26	34%	16	28%	96	38%
Students Who Completed Either Pre or Post	97	94%	43	60%	41	53%	48	84%	181	72%
Total Students	103		72		77		57		252	

Note: The percentages do not add up to 100% due to overlapping categories.

FIGURE I

NUMBER OF STUDENTS COMPLETING
GENERAL COLLEGE STUDENT SURVEY

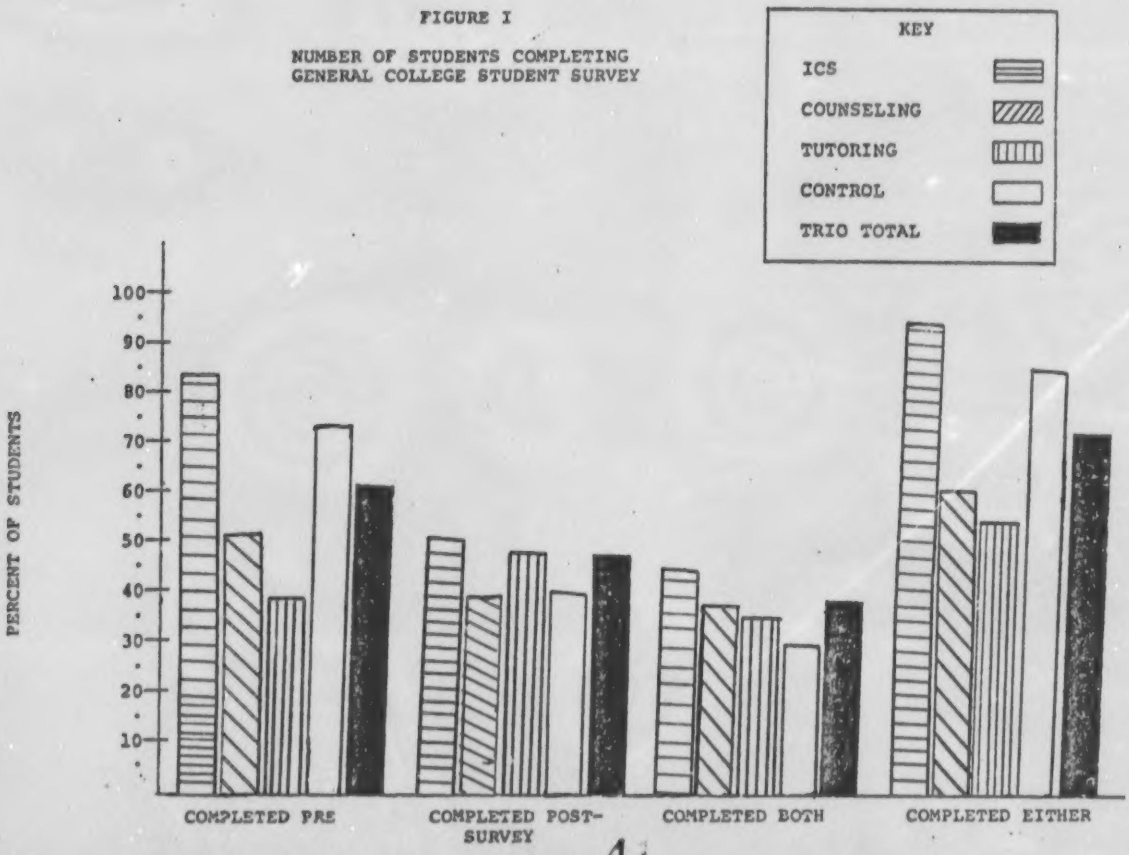

TABLE II

Sex of Student

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Female	60	58%	32	44%	30	39%	29	51%	122	48%
Male	43	42%	40	56%	47	61%	28	49%	130	52%
Total	103	100%	72	100%	77	100%	57	100%	252	100%

NOTE: Figures based on students completing GC Student Survey only, missing data excluded from calculations.

FIGURE II

SEX OF STUDENTS

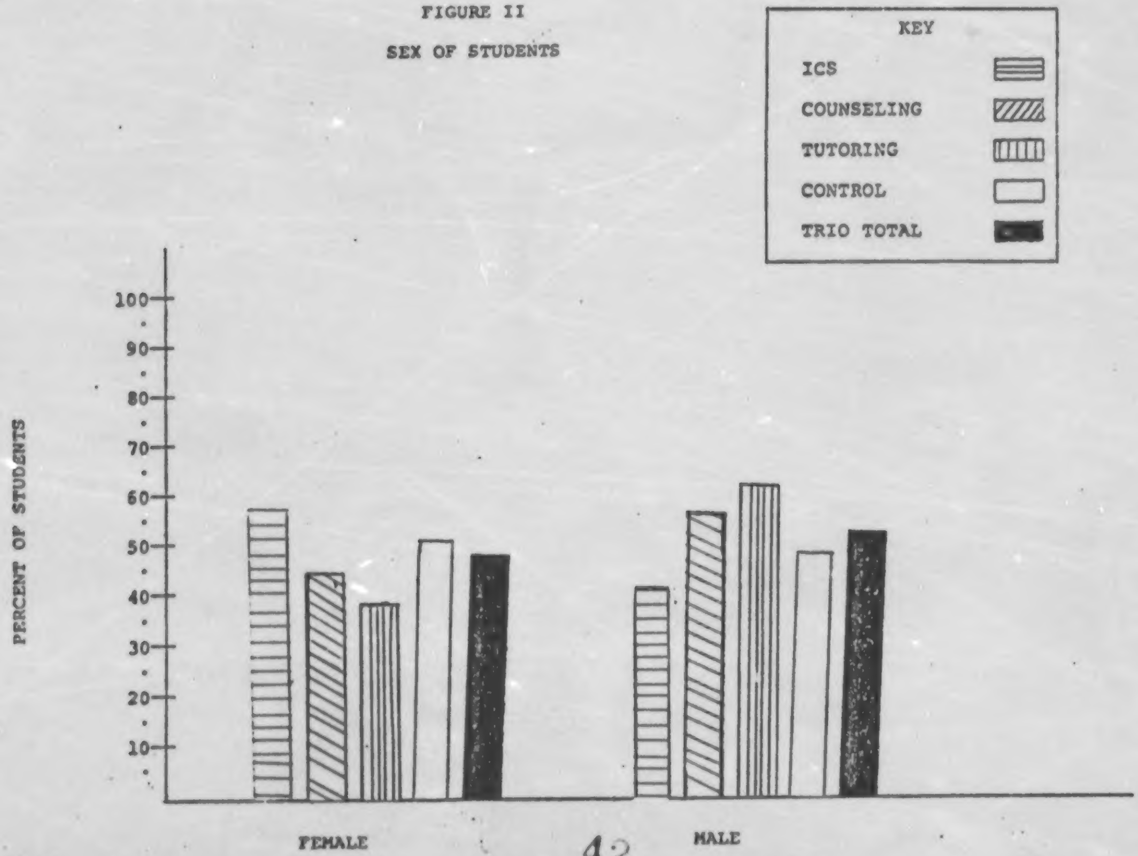

TABLE III

Age of Student

		ICS	Counseling	Tutoring	Control	TRIO Total
Total Number Completing GC Survey	N	97	43	42	42	182
Average Age	$\overline{X}$	23.29	21.63	23.19	24.14	22.87

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE III

AGE OF STUDENTS

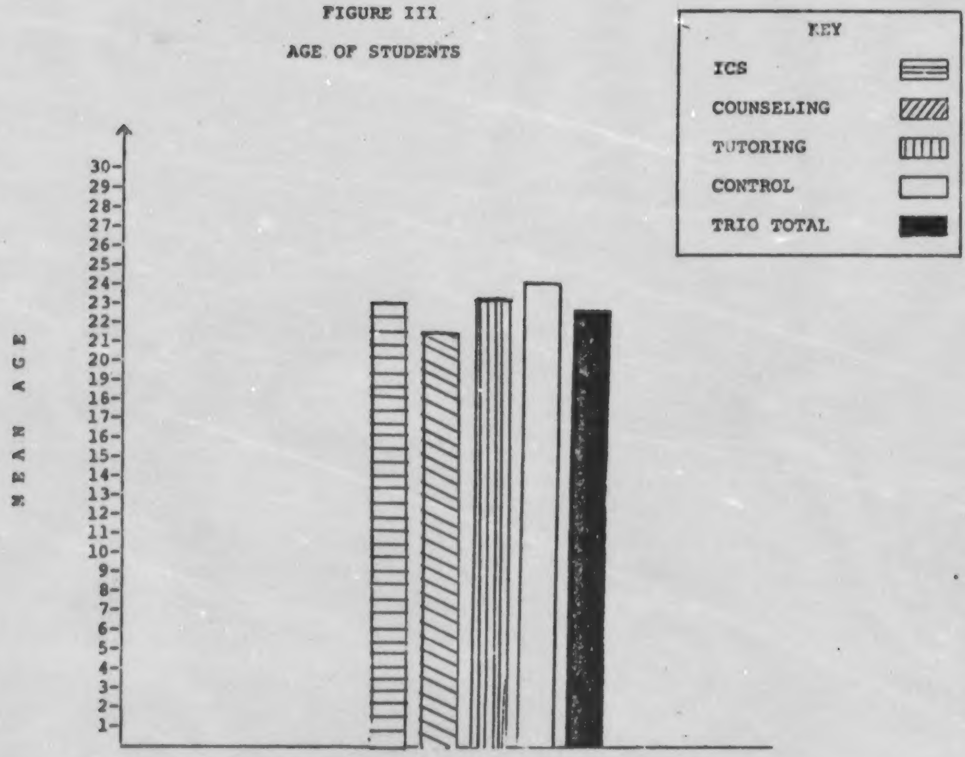

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TABLE IV

Ethnic Background of Student

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
American Indian	1	1%	1	2%	4	10%	1	2%	6	3%
Asian American	2	2%	1	2%	4	10%	1	2%	7	4%
Black Non-Hispanic Origin	12	14%	3	7%	3	7%	2	5%	18	10%
Hispanic	7	8%	0	0%	1	2%	0	0%	8	5%
Vietnamese	0	0%	2	5%	6	14%	1	2%	8	5%
Caucasian Non-Hispanic	61	70%	35	81%	20	48%	38	86%	116	67%
Other	4	5%	1	2%	4	10%	1	2%	9	5%
Total	87	100%	43	100%	42	100%	44	100%	172	100%

NOTE: Figures based on those students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE IV

ETHNIC BACKGROUND OF STUDENTS

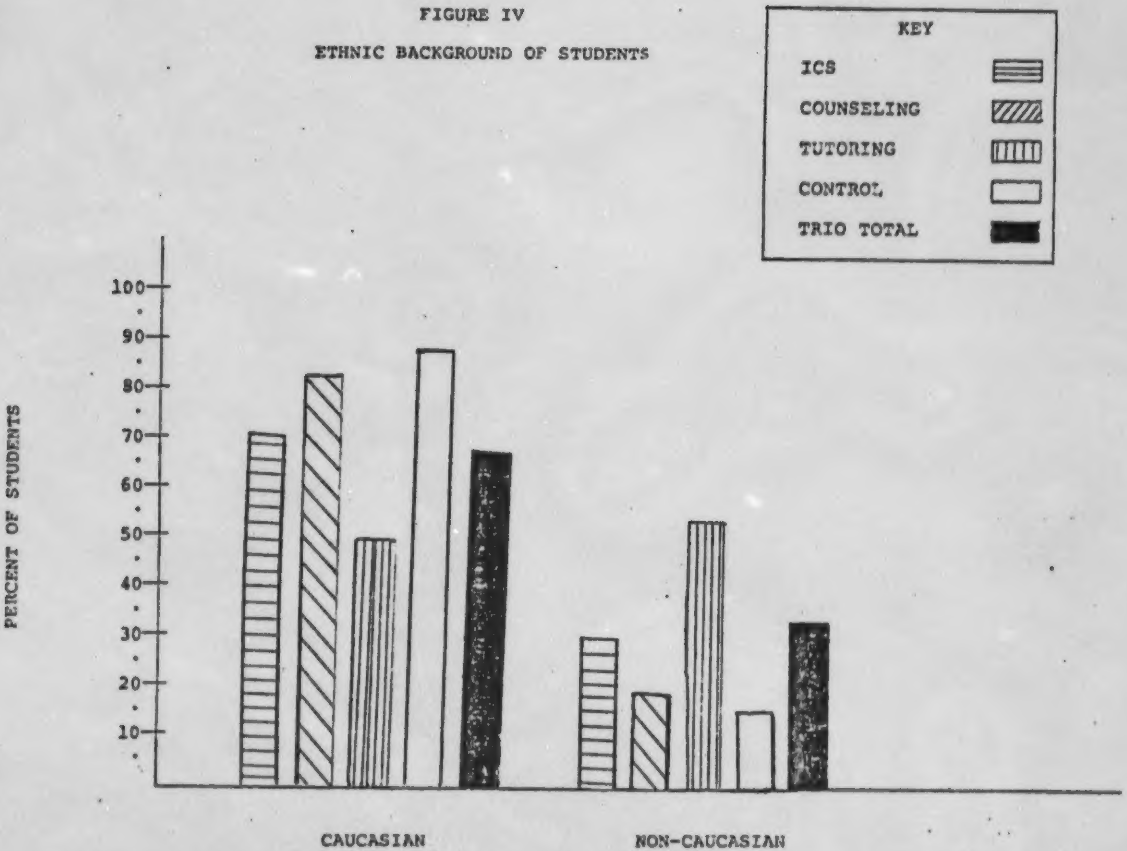


TABLE V

Students Receiving Financial Aid

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Yes	81	84%	36	86%	38	90%	44	96%	155	86%
No	16	16%	4	14%	4	10%	2	4%	26	14%
Item Total	97	100%	42	100%	42	100%	46	100%	181	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE V

STUDENTS RECEIVING FINANCIAL AID

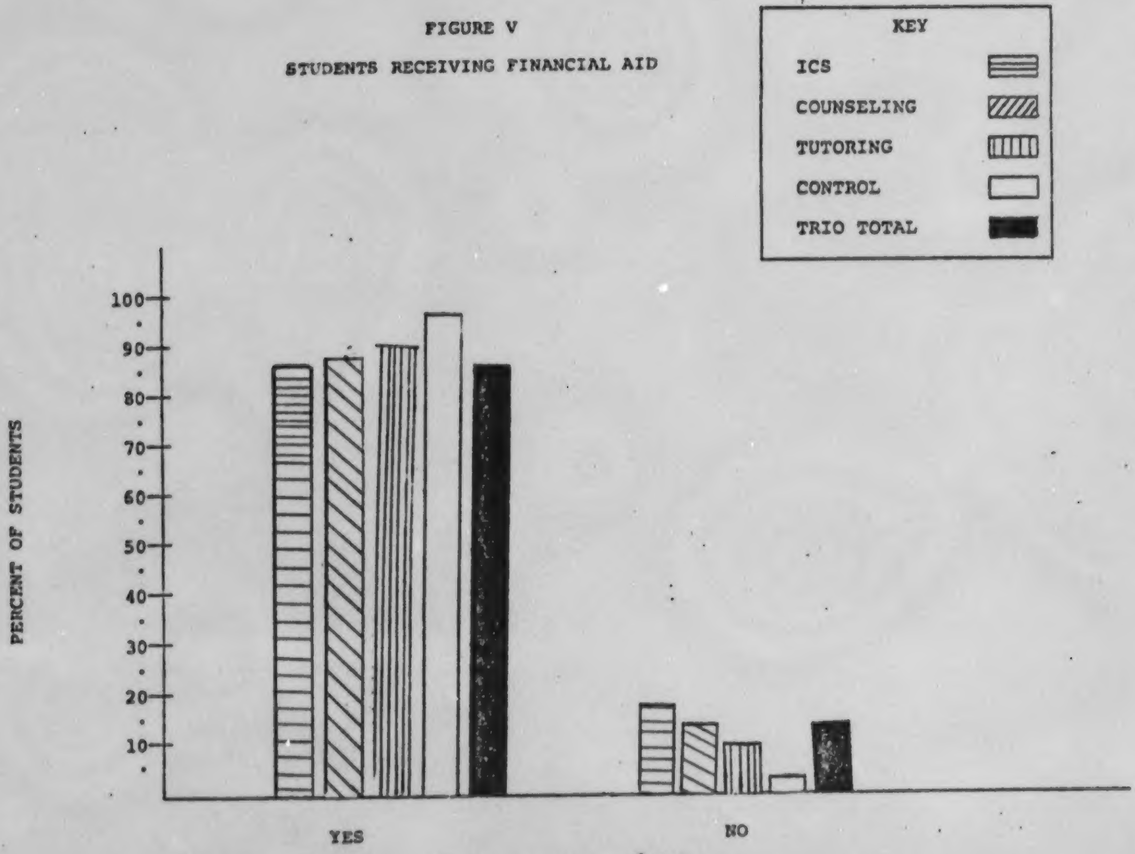


TABLE VI

Students Working While Attending College

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
No	29	30%	6	14%	8	19%	4	9%	43	24%
Yes, 1-10 Hours/Week	8	8%	10	23%	7	17%	3	6%	25	14%
Yes. 11-20 Hours/Week	27	28%	14	33%	12	29%	23	49%	53	29%
Yes. 21-35 Hours/Week	14	15%	5	12%	3	7%	9	19%	22	12%
Yes, 36 or More Hours/Week	3	2%	1	2%	5	12%	0	0%	9	5%
Not Sure	15	16%	7	16%	7	17%	8	17%	29	16%
Total	96	100%	43	100%	42	100%	47	100%	181	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE VI

STUDENTS WORKING WHILE ATTENDING COLLEGE

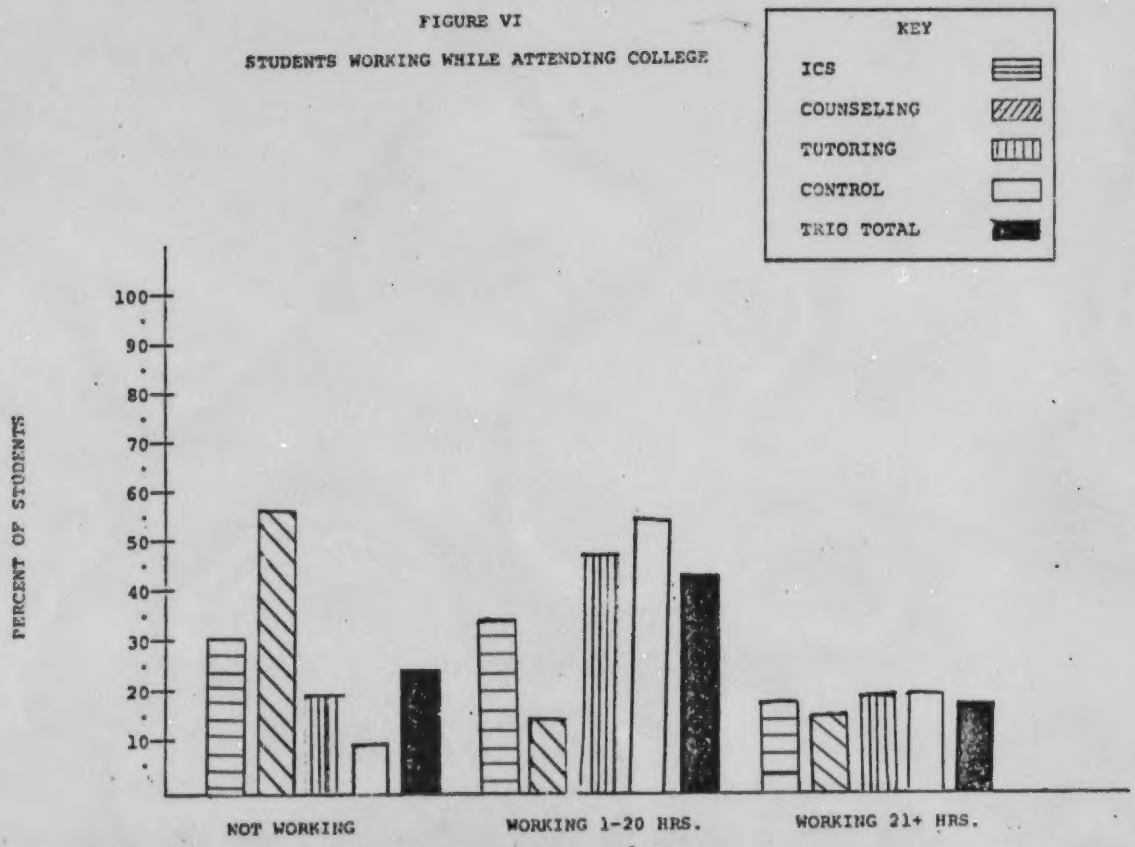


TABLE VII

Students' Transfer Plans from General College

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
No, do not plan to transfer	6	7%	6	14%	3	7%	8	17%	15	9%
Yes, to a college within the University	61	69%	27	63%	33	80%	31	67%	121	70%
Yes, to another college outside the University	1	1%	3	7%	0	0%	1	2%	4	2%
Not sure	21	24%	7	16%	5	12%	6	13%	33	19%
Item Total	89	100%	43	100%	41	100%	46	100%	173	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE VII

STUDENT TRANSFER PLANS

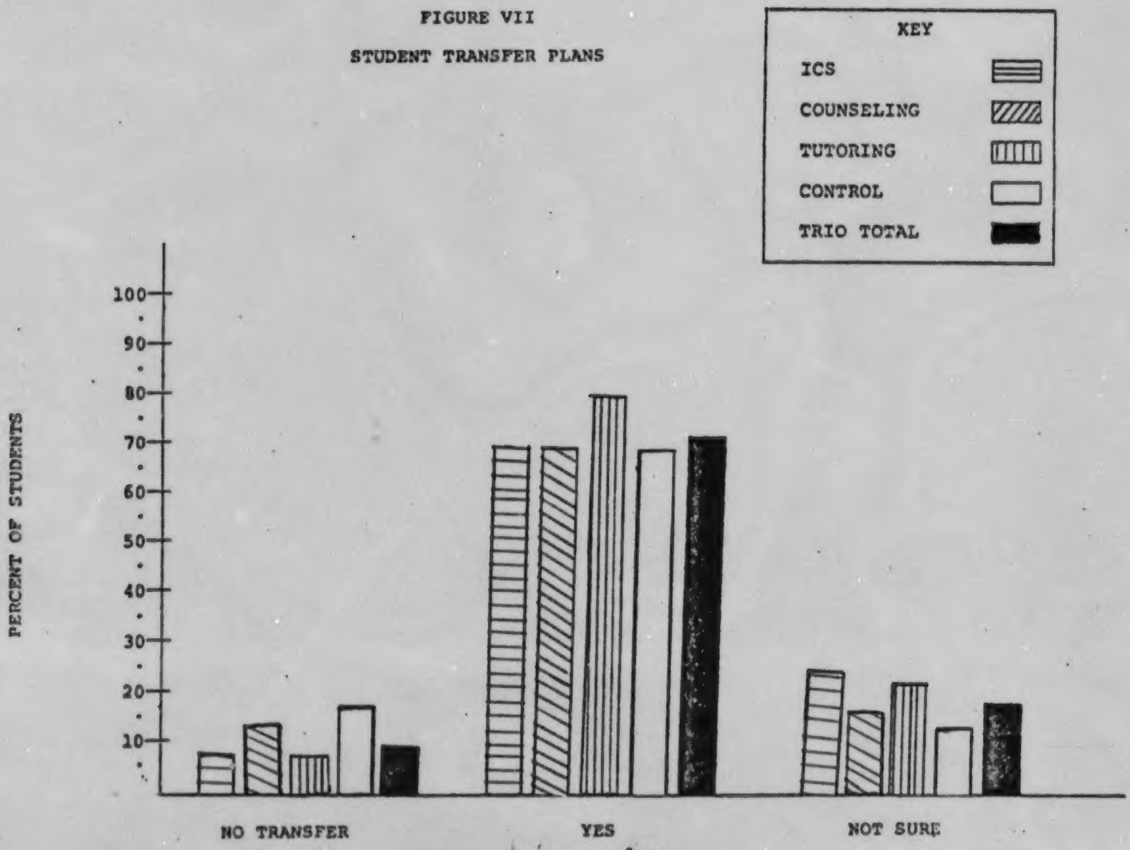


TABLE VIII

Students' Highest Grade Level Completed Before Enrolling in General College

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Eighth Grade or Less	0	0%	0	0%	0	0%	0	0%	0	0%
Some High School	1	1%	0	0%	1	2%	2	4%	2	1%
High School Graduation	53	55%	26	60%	23	55%	28	60%	102	56%
G.E.D. Diploma	16	16%	3	7%	7	16%	3	6%	26	14%
One Year or Less of College	14	14%	7	16%	6	14%	12	26%	27	15%
Two Years or More of College	5	5%	3	7%	3	7%	1	2%	11	6%
Other	8	9%	4	9%	2	5%	1	2%	14	8%
Item Total	97	100%	43	100%	42	100%	47	100%	182	100%

NOTE: Figures are based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE VIII

HIGHEST GRADE LEVEL COMPLETED BEFORE ENROLLING IN GENERAL COLLEGE

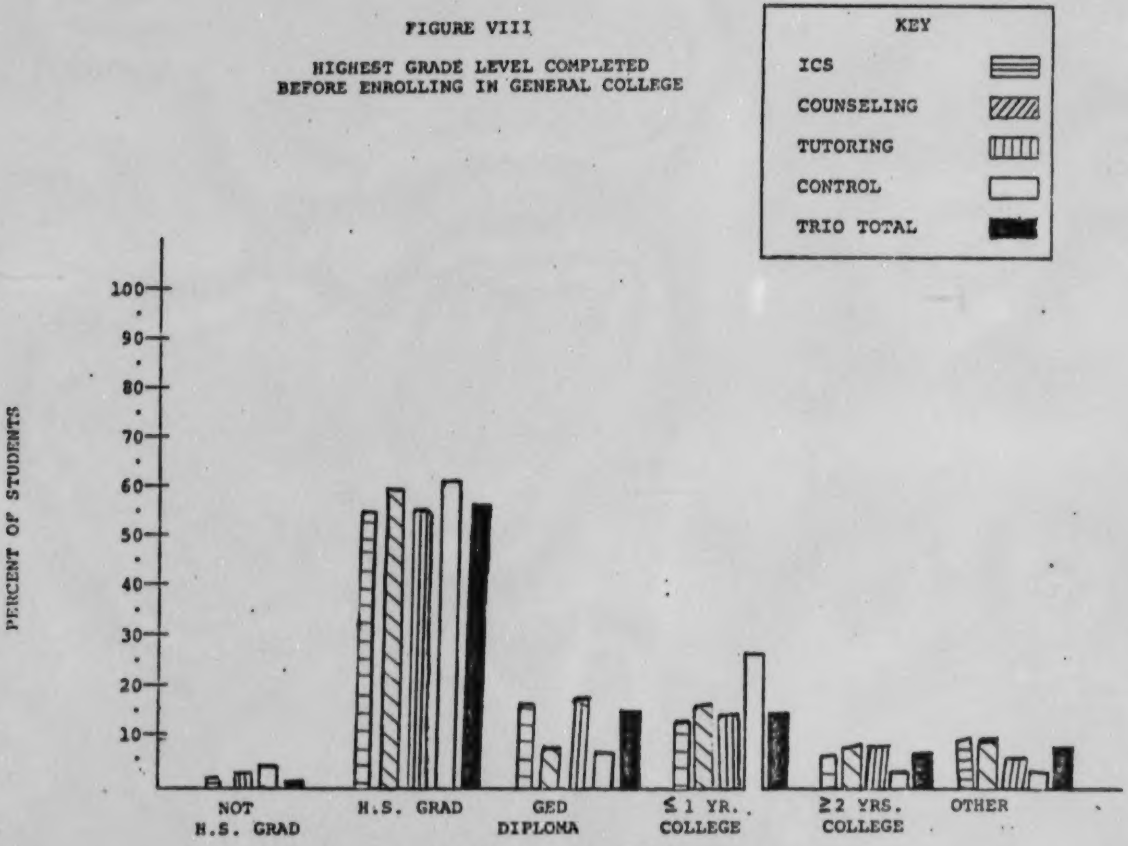


TABLE IX

Years Since Students Last Attended Any School

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Less Than 1 Year	43	45%	28	67%	20	49%	32	71%	91	51%
1-2 Years	20	21%	5	12%	5	12%	7	16%	30	17%
3-5 Years	12	13%	5	12%	9	22%	3	7%	26	15%
6-10 Years	16	17%	2	5%	2	5%	3	7%	20	11%
More Than 10 Years	5	5%	2	5%	5	12%	0	0%	12	7%
Item Total	96	100%	42	100%	41	100%	45	100%	179	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE IX

YEARS SINCE STUDENT LAST ATTENDED SCHOOL

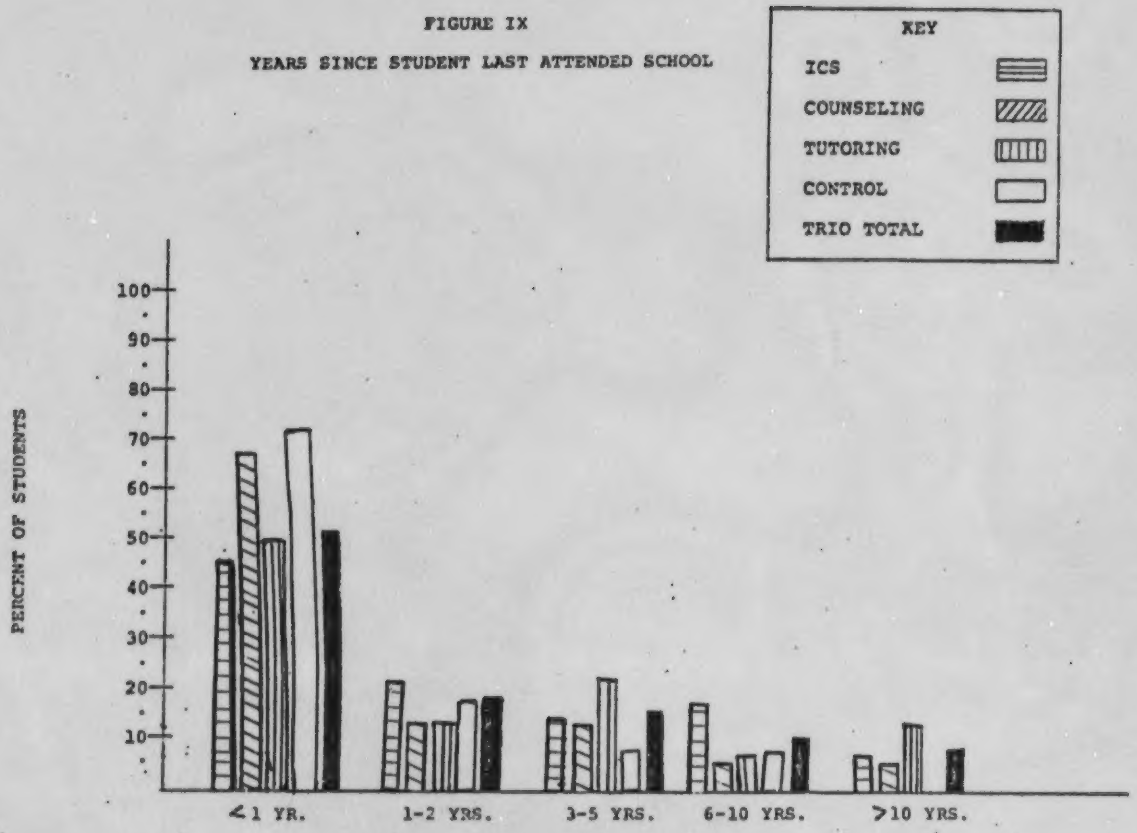


TABLE X

Highest Academic Degree to Which Students Aspire

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
None	4	4%	1	3%	1	2%	2	5%	6	3%
Certificate (less than Associate)	2	2%	1	3%	2	5%	1	2%	5	3%
Associate Degree	6	6%	2	5%	2	5%	4	9%	10	6%
Bachelors Degree	49	53%	22	55%	22	52%	20	47%	93	53%
Masters Degree	26	28%	9	22%	11	26%	14	33%	46	26%
Doctorate	4	4%	5	13%	4	10%	2	5%	13	7%
Missing Data	2	2%	0	0%	0	0%	0	0%	2	1%
Item Total	93	100%	40	100%	42	100%	43	100%	175	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE X

HIGHEST DEGREE ASPIRATIONS

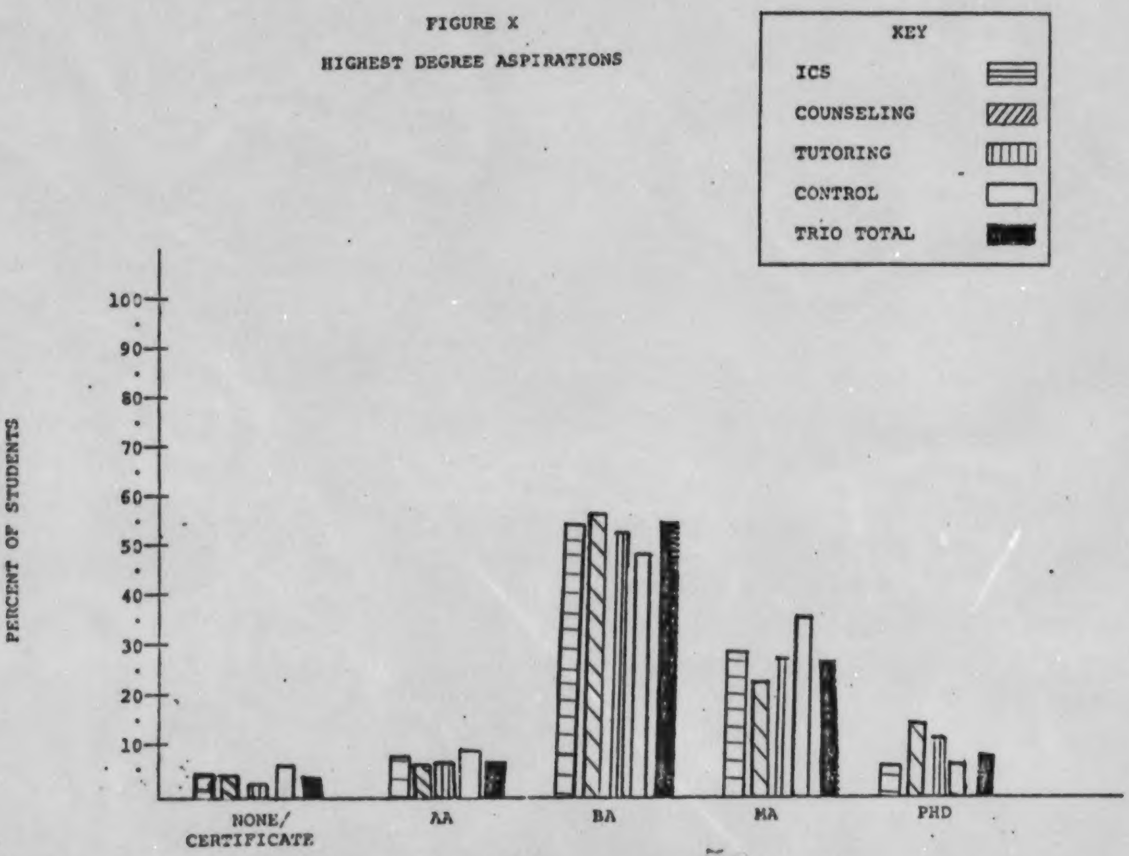


TABLE XI

Mother's Educational Level

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
8th Grade or Less	11	12%	2	5%	6	18%	4	9%	19	11%
Some High School	12	13%	5	12%	1	3%	4	9%	18	11%
GED or High School Grad	36	43%	16	37%	6	18%	15	34%	58	35%
Some College	17	19%	7	16%	11	33%	5	11%	35	21%
Post High School Voc. Training	6	7%	2	5%	4	12%	6	14%	12	7%
Bachelors Degree	6	7%	5	12%	3	9%	7	16%	14	8%
Masters Degree	3	3%	6	14%	2	6%	2	5%	11	7%
Doctorate Degree	0	0%	0	0%	1	3%	1	2%	1	1%
Total	91	-	43	-	34	-	44	-	168	-

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE XI

MOTHER'S EDUCATIONAL LEVEL

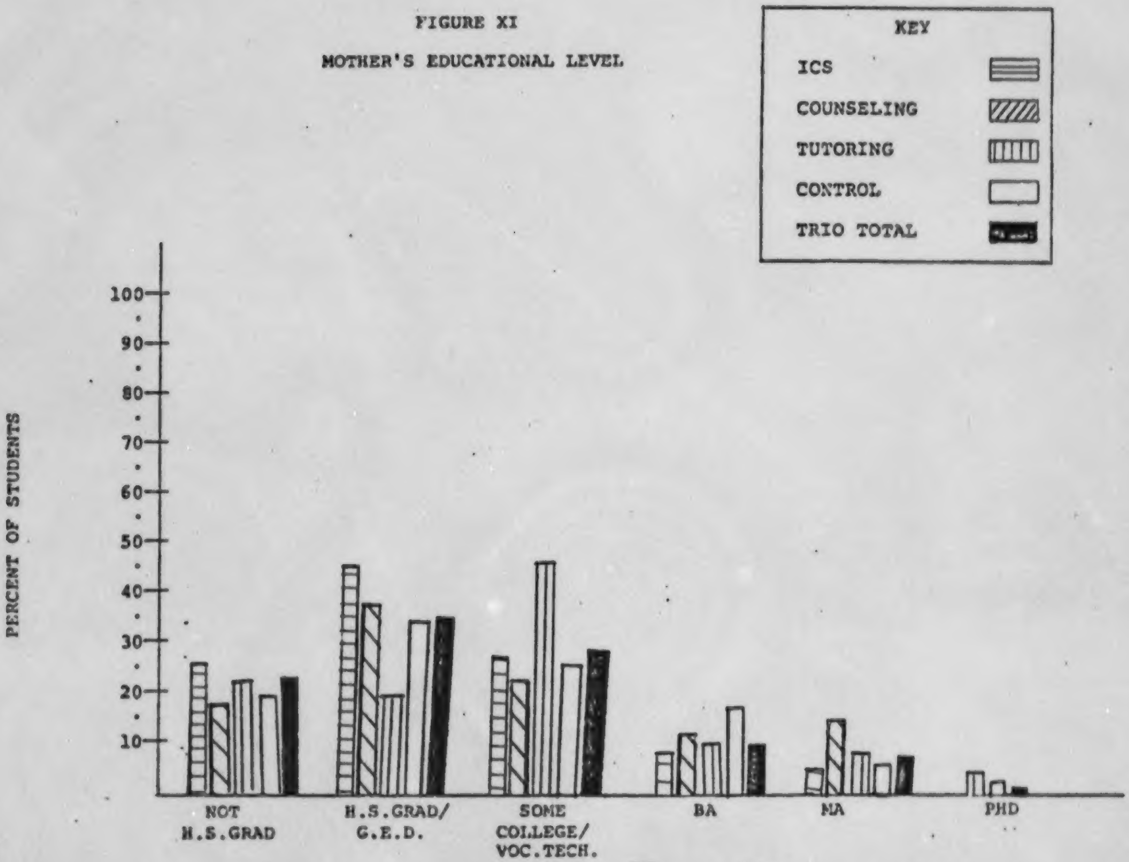


TABLE XII

Father's Educational Level

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
8th Grade or Less	15	17%	2	5%	5	15%	3	7%	22	13%
Some High School	14	16%	6	14%	5	15%	4	9%	25	15%
GED or High School Grad	24	27%	10	24%	4	12%	13	29%	38	23%
Some College	8	9%	6	14%	5	15%	4	9%	19	12%
Post High School Vocational Training	10	11%	6	14%	5	15%	6	13%	21	13%
Bachelors Degree	7	8%	6	14%	5	15%	10	22%	18	11%
Masters Degree	7	8%	5	12%	4	12%	4	9%	16	10%
Doctorate Degree	3	3%	1	2%	0	0%	1	2%	4	2%
Item Total	88	100%	42	100%	33	100%	45	100%	163	100%

NOTE: Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE XII

FATHER'S EDUCATIONAL LEVEL

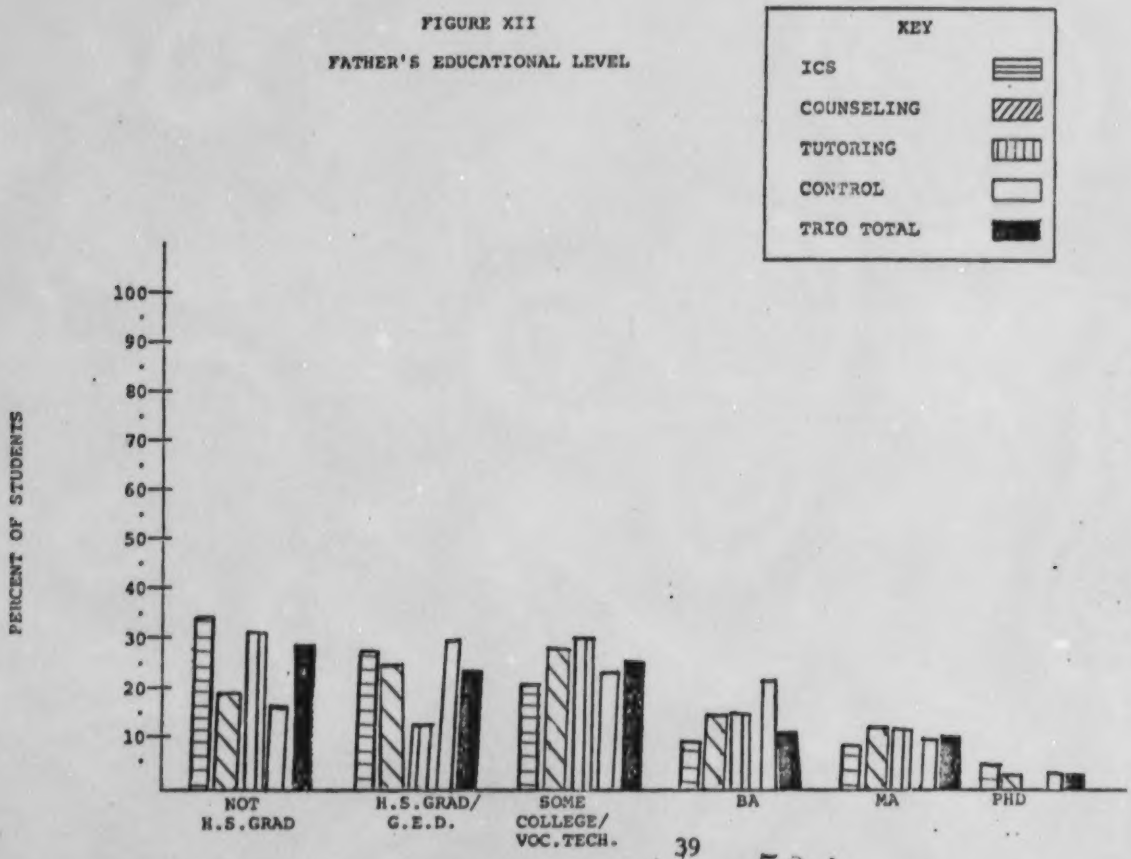


TABLE XIII

Student Majors

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
Undecided	23	24%	10	24%	12	27%	11	24%	45	26%
Business	17	18%	7	17%	5	11%	8	18%	29	17%
Humanities (e.g., literature, philosophy, art, etc.)	4	4%	0	0%	1	2%	1	2%	5	3%
Social Science (e.g., psychology, sociology, history)	7	7%	2	5%	3	7%	2	4%	12	7%
Math or Science (e.g., engineering, math, biology, computer science)	15	16%	9	21%	8	18%	5	11%	32	18%
Medical Science (e.g., nursing, dental hygiene, occ. or phys. therapy)	8	9%	3	7%	3	7%	5	11%	14	8%
Education (e.g., elem., secondary, phys. ed.)	3	3%	3	7%	2	5%	4	9%	8	5%
Other	17	18%	8	9%	3	7%	9	20%	28	16%
Item Total	94	100%	42	100%	44	100%	45	100%	173	100%

NOTE: Figures based on students completing GC student Survey only, missing data are excluded from calculations.

FIGURE XIII

STUDENT MAJORS

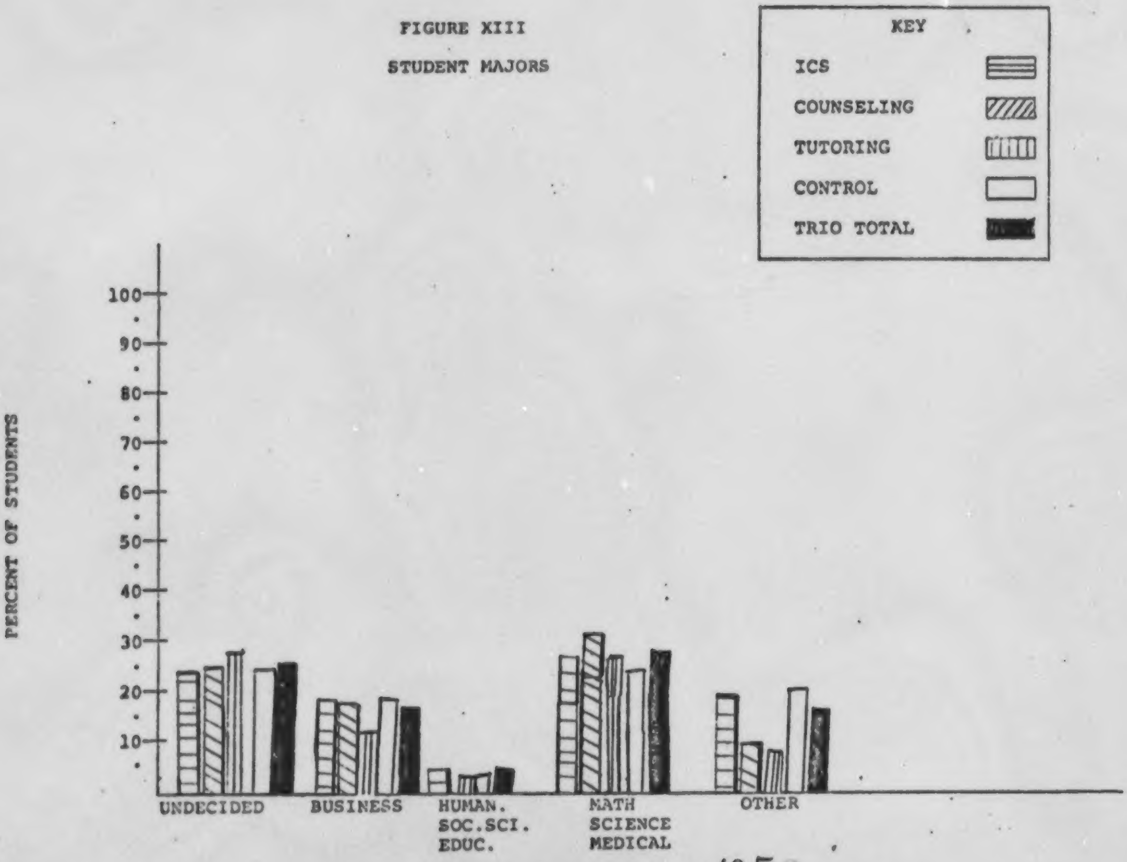


TABLE XIV

Self-Report of Students with Physical, Emotional, or Learning Disabilities

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	%	N	%	N	%	N	%	N	%
No Disability Reported	86	89%	40	93%	39	93%	41	98%	165	91%
Have Physical, Emotional, or Learning Disability	11	11%	3	7%	3	7%	1	2%	17	9%
Needs Services for Disability	7	7%	2	5%	1	2%	1	2%	10	5%
Item Total	97	100%	43	100%	42	100%	42	100%	182	100%

Note: Total = No disability reported + Have disability.
Figures based on students completing GC Student Survey only, missing data are excluded from calculations.

FIGURE XIV

STUDENT SELF REPORT OF PHYSICAL, EMOTIONAL, OR LEARNING DISABILITIES

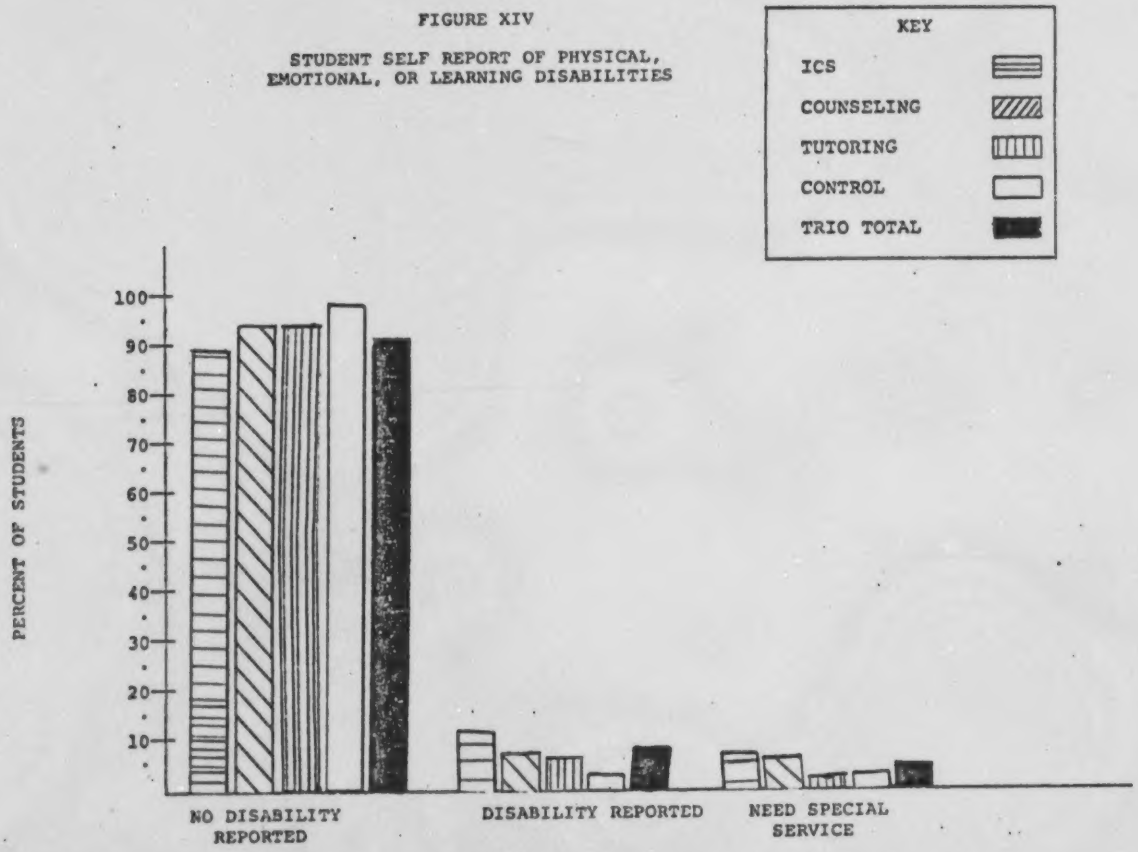


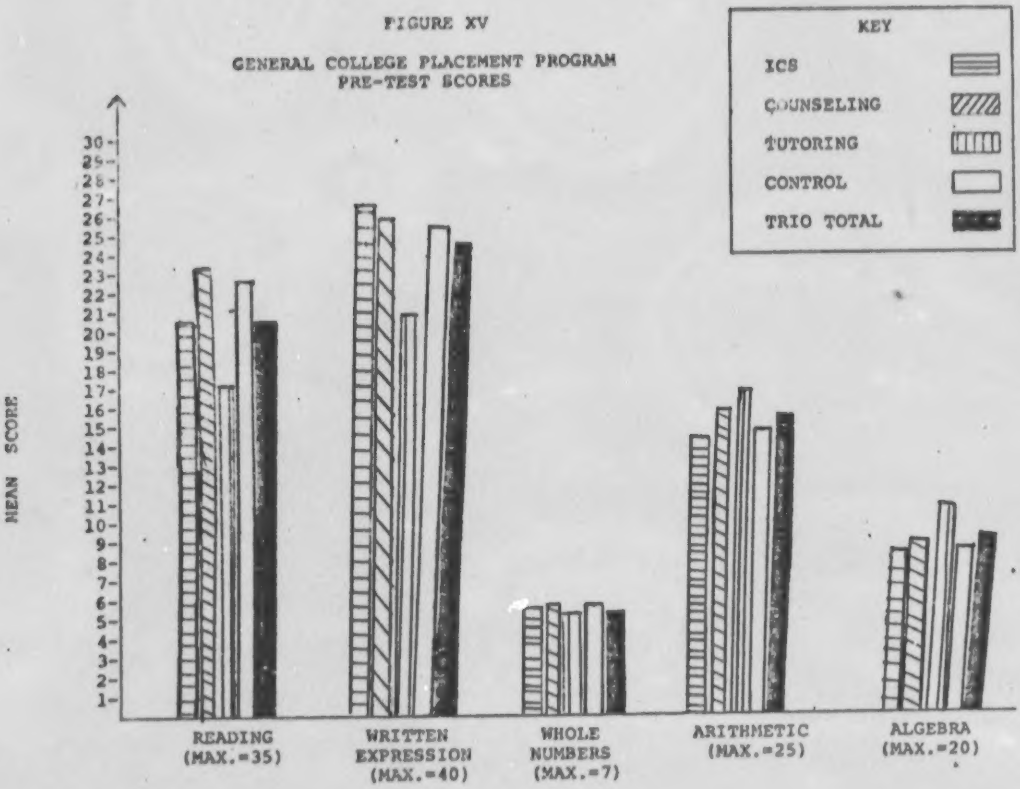
TABLE XV

General College Placement Program Test Scores

	ICS		Counseling		Tutoring		Control		TRIO Total	
	N	$\overline{X}$	N	$\overline{X}$	N	$\overline{X}$	N	$\overline{X}$	N	$\overline{X}$
Reading (maximum score = 35)	82	20.40	66	23.14	57	17.18	51	22.57	205	20.39
Written English Expression (maximum score = 40)	82	26.57	66	25.86	57	20.86	51	25.24	205	24.73
Whole Numbers (maximum score = 7)	82	5.32	66	5.65	57	5.42	51	5.35	205	5.45
Arithmetic (maximum score = 25)	82	14.27	66	15.88	57	16.54	51	14.67	205	15.42
Algebra (maximum score = 20)	82	8.04	66	8.94	57	10.53	51	8.39	205	9.02

FIGURE XV

GENERAL COLLEGE PLACEMENT PROGRAM
PRE-TEST SCORES



CHAPTER V
STUDENT OUTCOMES: ACADEMIC

Introduction

The primary questions of interest in this evaluation are:

1) Did TRIO students stay in school? and
2) Were they successful in school?

To answer the first question, the overall retention rate for the program (the proportion of students who remained in school continuously from their entry into the program to the end of the year) is examined. The most widely used measures of academic success are the grade point average (GPA) and the proporation of completed credits for each student (credit completion ratio; CCR). These measures take into account not only the grade achieved, but also the number of credits attempted and passed during the academic year. These three traditional indicators of success: retention rate, CCR and GPA, and explored in this section.

Method

Subjects

The subjects described in this study represent four groups:

a) ICS students - all students enrolled in the Integrated Course of Study (ICS) were asked to participate in the study.

b) Counseling students - all General College freshmen who were eligible for the Special Services Program (by low income, academic need, handicapped or minority status) and utilized the counseling facilities two or more times during the academic year, were included in the study.

c) Tutorial group - all General College freshmen who were eligible for Special Services, and made use of direct personal tutoring two or more times, were included in the study. Some tutoring students also received counseling.

d) Control group - a control group of 57 students was randomly selected from General College freshmen eligible for Special Services using the low income criteria, and who had not participated in the TRIO program or other retention programs also operating at General College.

A TRIO total is reported on each variable collected which combines the ICS, Tutoring and Counseling groups so that TRIO students can more readily be compared to the control group.

Individual files are created and maintained for each student. These files contain the student demographic profiles described in Section IV. The students are also tracked throughout the year on the following items:

1) courses and number of credits attempted each quarter,
2) courses and number of credits completed each quarter, and
3) grades received for those courses.

The source of this information is the official student transcript. These data are recorded quarterly and for the full academic year.

Retention Rate

The retention rate is defined as the proportion of students in each group who remain registered continuously from their quarter of entry into the program until the end of the academic year. To be considered "retained," a student who enters in the Fall must register for and complete Fall, Winter and Spring quarters and a student who begins Winter quarter must register for and complete Winter and Spring quarters. Students attending Spring quarter only are not included in this analysis.

A retention rate of 85% indicates that 85% of the students remained in school while 15% did not.

Grade Point Average (GPA)

The University of Minnesota (UM) uses a 4-point grading system where A = 4 grade points, B = 3 grade points, C = 2 grade points, D = 1 grade point and N = 0 grade points. N is not a passing grade and credit is not given for classes where a grade of N is received. Unlike many universities, at UM, grades of N are not included in the grade point average. To make these data comparable to other university settings, GPA's are calculated in two ways, first with N's excluded and secondly with N's included.

For a three-credit course with a grade of B, nine grade points are given (3 credits x 3 grade points = 9 grade points). In order to compare the groups on grade points, a Group GPA (N's excluded) is calculated by dividing the total number of grade points received by the group by the total number of credits completed with a passing grade (A - D). To include N's, the total number of grade points received is divided by the total number of credits attempted by that group. Grades of S (S = pass on a pass/fail grading option), I (I = incomplete) and W (W = withdrawal) are excluded in both cases.

Credit Completion Ratio (CCR)

Credit completion is calculated in two ways. The CCR 1 shows how many courses were completed, pass or fail. It is calculated by dividing the total number of credits for which a grade was received (A,B,C,D,S or N) in each group by the total number of credits attempted by that group. If 30 out of 40 credits attempted are completed, then the CCR = .75, indicating 75% of the credits are completed.

The CCR 2 is calculated by dividing the total number of credits receiving a passing grade (A,B,C,D or S) in each group by the total number of credits attempted by that group.

Classes officially withdrawn from are excluded.

Results

The overall retention rates for each group are displayed in Table I, Figure I. The TRIO retention rate is 81.35% vs. 71.93% for the Control group. A Chi-Square test for independent samples was performed and the actual retention rates were found to differ significantly from the expected rates, which indicates that a statistically significant difference does occur between group retention rates ($\chi^2 = 9.4$, $\alpha = .05$).

The group GPA's (N's excluded) are displayed in Table II, Figure II. These data also show little variation between groups. A one way Analysis of Variance produced no statistical differences between groups. The TRIO students have a cumulative GPA of 2.78 as compared to the Control GPA of 2.61. The General College GPA (N's excluded) for the 1981-82 academic year was 2.60 (Romano, 1982).

The group GPA's (N's included) for each quarter and cumulatively are presented in Table III, Figure III. These data show that overall, the TRIO students have a higher GPA (TRIO $\overline{X} = 2.53$ vs. $\overline{X} = 1.89$ for the Control group). A one way analysis of variance (ANOVA) was performed and the differences between groups were found to be statistically significant ($\alpha = .05$). The General College GPA (N's included) for the 1981-82 academic year was 2.36 (Romano, 1982).

The Credit Completion Ratios (CCR1 and CCR2) for each quarter and cumulatively are displayed for each group in Table IV, Figure IV. Both TRIO and Control students received grades for a high proportion of courses attempted (CCR1 = .95 for both groups), but TRIO students passed a significantly higher proportion of their classes than the Control group (CCR2 = .84 TRIO vs. .70 Control). This difference is statistically significant on a Chi-Square test for independent samples ($\chi^2 = 3.78$, $\alpha = .05$).

Another variable of interest, also displayed in Table IV, is the mean number of credits attempted and completed for each group. These data show that TRIO students, on a yearly basis, attempted slightly more credits than the Control group (34.95 TRIO vs. 33.50 Control) but TRIO students passed an average of 5.84 credits more than the Control group for the academic year.

Comparable statistics for GC students for credit completion, credits attempted, and completed are not available due to different computational methods.

Conclusion

TRIO students compare favorably to the low income Control group on retention, credits passed and grade point average (N's excluded and included). When compared to General College students as a whole, TRIO students compared favorably on grade point average.

These findings support the goal of the TRIO program to promote educational success and provide a creditable academic program.

TABLE I

Student Retention Rates

	ICS	Counseling	Tutoring	Control	TRIO Total
Total Number of Students Enrolled During Academic Year	103	72	77	57	252
Number of Students Maintaining Continuous Registration	81	54	70	41	205
Retention Rate Proportion of Students Maintaining Continuous Registration	78.64%	75%	90.91%	71.93%	81.35%

FIGURE I

STUDENT RETENTION RATES

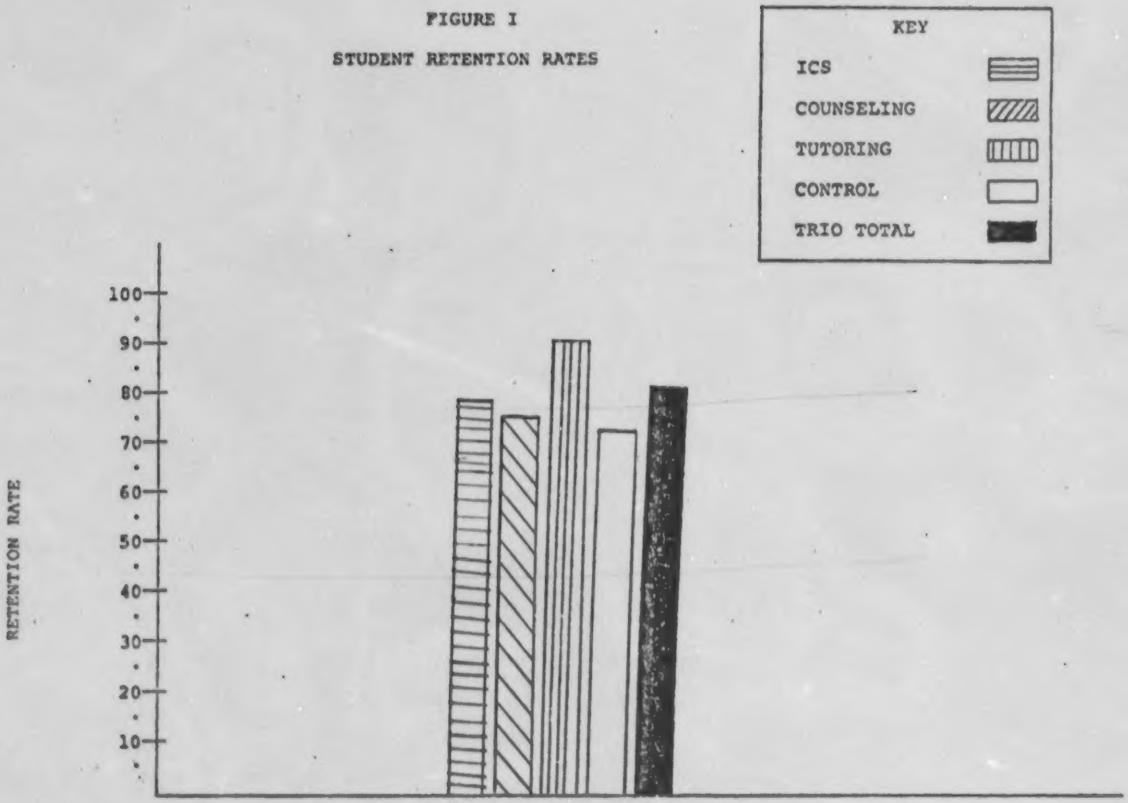


TABLE II

Grade Point Averages for Each Group for Fall, Winter, Spring Quarters and Cumulatively
(A = 4, B = 3, C = 2, D = 1, N's not included)

	ICS	Counseling	Tutoring	Control	TRIO Total
Fall					
N of Students	95	71	77	51	243
grade point average	3.12	2.85	2.88	2.87	2.96
Winter					
N of Students	91	62	73	44	226
grade point average	2.79	2.94	2.88	2.52	2.87
Spring					
N of Students	79	55	67	39	201
grade point average	2.63	2.69	2.74	2.63	2.69
Cumulative					
Total Students in Program	101	71	77	52	249
grade point average	2.73	2.81	2.82	2.61	2.78

FIGURE II
MEAN GRADE POINT AVERAGE
(A=4, B=3, C=2, D=1, N's NOT INCLUDED)

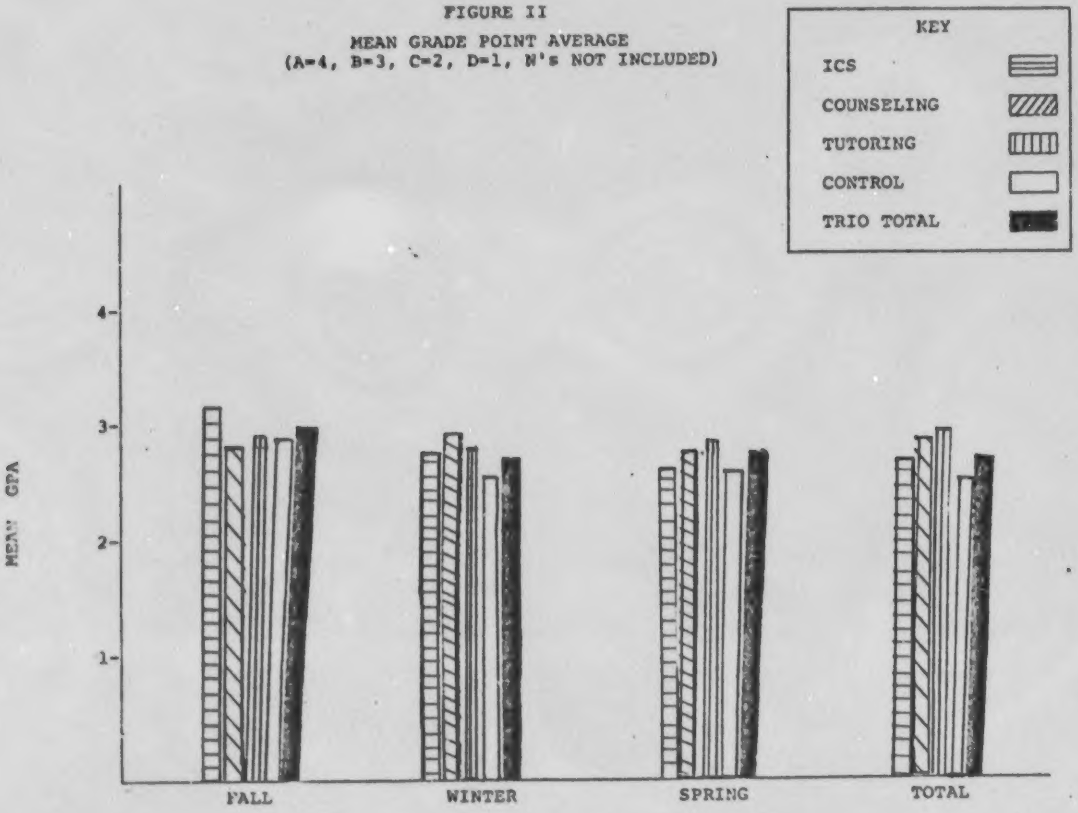


TABLE III

Grade Point Averages for Each Group for Fall, Winter, Spring Quarters and Cumulatively
(A = 4, B = 3, C = 2, D = 1, N = 0)

	ICS	Counseling	Tutoring	Control	TRIO Total
Fall					
N of Students	95	71	77	51	243
grade point average	2.70	2.51	2.81	2.36	2.68
Winter					
N of Students	91	62	73	44	226
grade point average	1.64	2.61	2.70	1.81	2.28
Spring					
N of Students	79	55	67	39	201
grade point average	2.14	2.40	2.46	1.58	2.33
Cumulative					
Total N of Students in Program	101	71	77	52	249
grade point average	2.41	2.51	2.68	1.89	2.53

FIGURE III

MEAN GRADE POINT AVERAGE
(A=4, B=3, C=2, D=1, N=0)

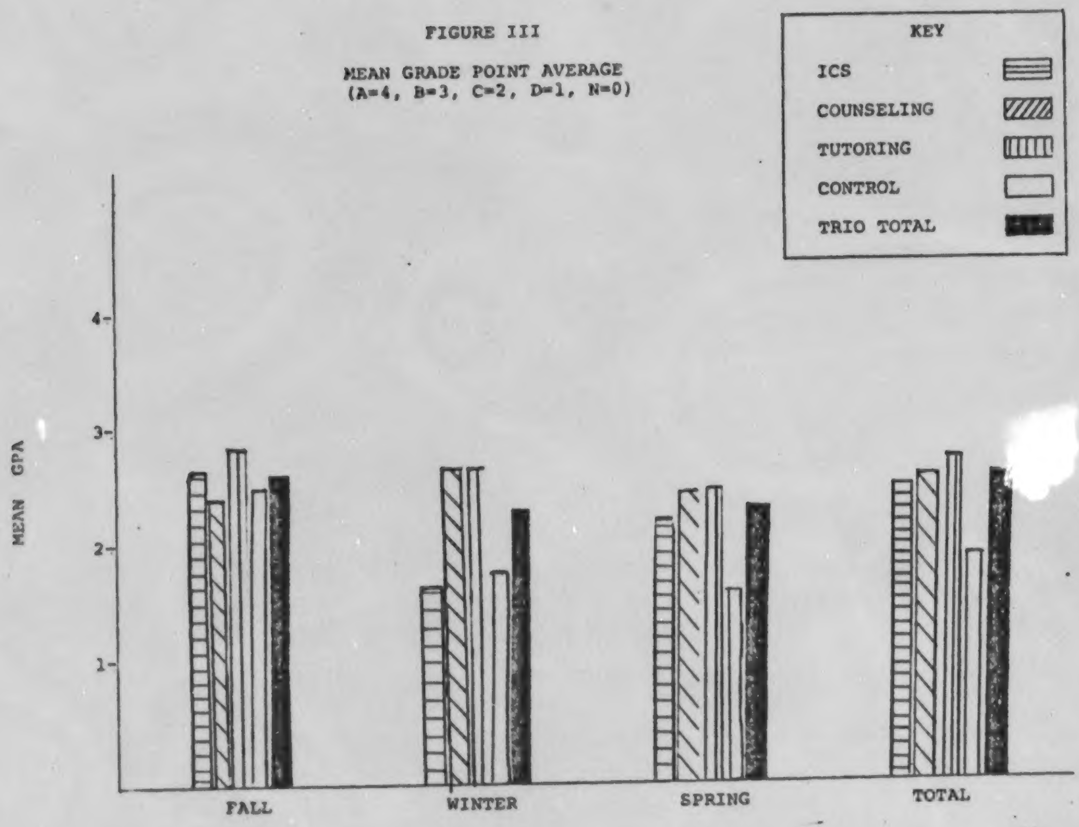


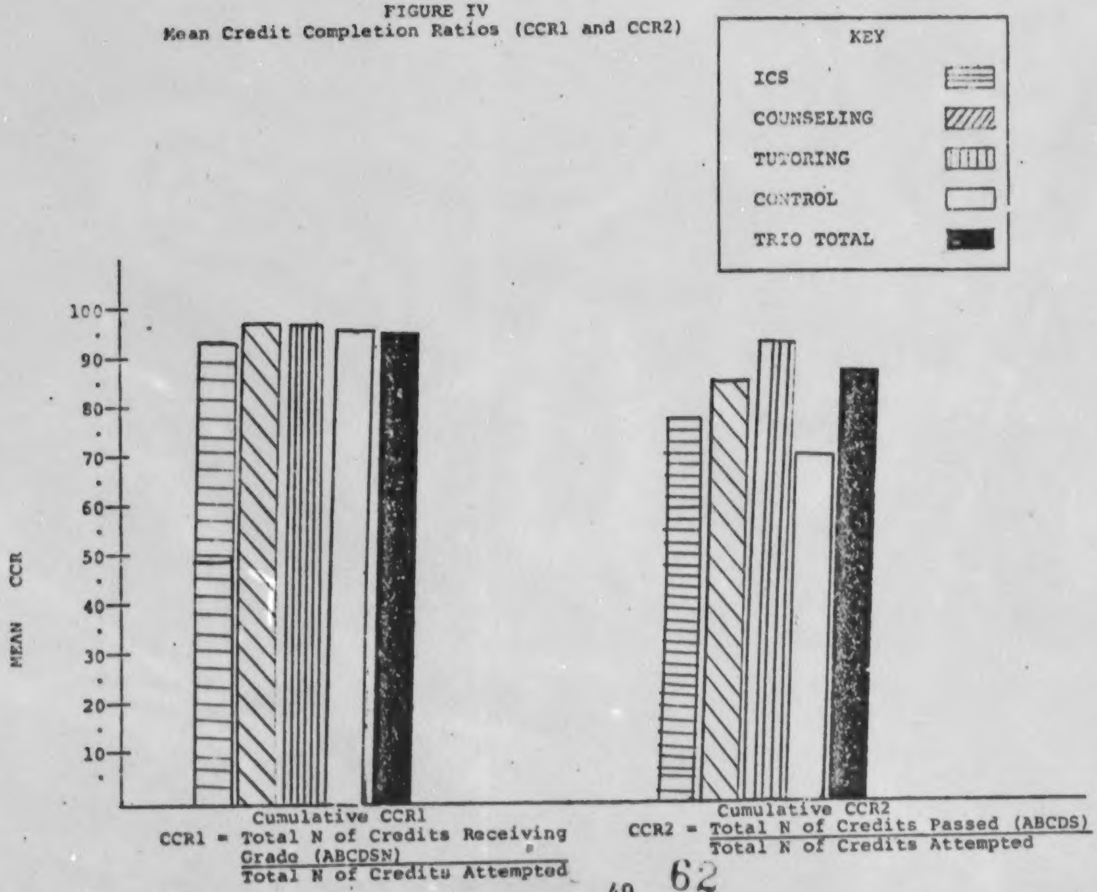
TABLE IV

Mean Credit Completion Ratios (CCR) and Mean Credits; Attempted, Receiving Grade, and Passed for Each Group of Students for Each Quarter and Cumulatively

	ICS	Counseling	Tutoring	Control	TRIO Total
Fall Quarter					
N of Students	95	71	77	51	243
CCR1	.97	.97	.99	.97	.98
CCR2	.84	.83	.97	.80	.88
$\bar{X}$ Credits Attempted	14.08	12.92	13.26	13.12	13.48
$\bar{X}$ Credits Receiving Grade	13.72	12.49	13.19	12.71	13.19
$\bar{X}$ Credits Passed	11.80	10.77	12.88	10.55	11.84
Winter Quarter					
N of Students	91	62	73	44	226
CCR1	.89	.96	.97	.93	.94
CCR2	.73	.85	.93	.69	.89
$\bar{X}$ Credits Attempted	13.53	12.97	13.45	13.02	13.27
$\bar{X}$ Credits Receiving Grade	12.00	12.40	13.07	12.07	12.46
$\bar{X}$ Credits Passed	9.86	11.03	12.55	8.93	11.05
Spring Quarter					
N of Students	79	55	67	39	201
CCR1	.89	.97	.93	.95	.92
CCR2	.74	.85	.84	.59	.81
$\bar{X}$ Credits Attempted	11.63	12.76	12.63	12.92	12.27
$\bar{X}$ Credits Receiving Grade	10.34	12.35	11.69	12.26	11.34
$\bar{X}$ Credits Passed	8.62	10.82	10.66	7.62	9.90
Cumulative					
N of Students	101	71	77	52	249
CCR1	.93	.96	.96	.95	.95
CCR2	.78	.85	.92	.70	.84
$\bar{X}$ Credits Attempted	33.95	34.00	37.13	33.50	34.95
$\bar{X}$ Credits Receiving Grade	31.45	32.61	35.49	31.87	33.00
$\bar{X}$ Credits Passed	26.40	28.92	33.97	23.62	29.46

$\text{CCR1} = \dfrac{\text{Total N of Credits Receiving Grade (A,B,C,D,S,N)}}{\text{Total N of Credits Attempted}}$ $\text{CCR2} = \dfrac{\text{Total N of Credits Passed (A,B,C,D,S.)}}{\text{Total N of Credits Attempted}}$

FIGURE IV
Mean Credit Completion Ratios (CCR1 and CCR2)



CHAPTER VI
STUDENT OUTCOMES: NON-ACADEMIC

Introduction

In order to determine student growth in non-academic areas, several student outcome measures were collected in addition to the more traditional indicators of academic success described in Chapter V (GPA, credit completion, retention rates). These non-academic measures included changes over the year in: self esteem, self assessment of skills, and academic aspirations.

The non-academic outcomes reveal more about students in a broad way, about their expectations, feelings of self worth, and dreams. All of these things have an impact on how well students perform academically. In general, program goals are geared toward increasing self esteem, positive self evaluation of skills and academic aspirations.

Method

Subjects

The subjects in this study represent four groups:

a) ICS Students - all students enrolled in the Integrated Course of Study (ICS) were asked to participate in the study;
b) Counseling Students - all General College freshmen who were eligible for the Special Services Program (by low income, academic need, handicapped or minority status) and utilized the counseling facilities two or more times during the academic year were included in the study;
c) Tutorial Group - all General College freshmen who were eligible for Special Services and made use of direct personal tutoring two or more times. Some of these students also received counseling;
d) Control Group - a control group of 57 students was randomly selected from General College freshmen eligible for Special Services using the low income criteria, and who had not participated in the TRIO/Special Services Program or other retention program also operating at General College.

Procedure

Data were collected Fall quarter through the regular General College orientation program and again at the end of the academic year through a mailed survey Students completing the post survey were paid $5.00 for their participation.

Instruments

The instruments used in this study are:

1) Self Esteem (administered as a pretest and retrospective pre/ post test)

The Janis Field feelings of inadequacy scale is used to measure self esteem. It is probably the most widely used non-commercial scale (Robinson, Shaver, 1973) of self esteem. The twenty-item version developed by Eagly (1967) and used in this study is balanced for response bias with the inclusion of items both positively and negatively stated. The popularity of the Janis-Field inventory has led to the accumulation of validity information sufficient to justify its use.

At the end of the year, a retrospective pre/post test for self esteem was administered. This methodology asks students to respond to each item with the current feelings (post test) and as they felt prior to enrolling in college (retrospective pre test). In this way, a perceived changed in self esteem can be determined. Research on the effectiveness of this technique suggests that it may be more accurate than a traditional pre and post test (Howard, 1979). The retrospective pre test data was not used as a substitute for pre data, but provides data for additional analysis. Much more research must be conducted on this technique before it could be used validly as a substitute for pre test data.

2) General College Student Survey (GCSS, selected items)

The General College Student Survey was administered as a pre test during regular GC orientation.

For this analysis two items were selected to be looked at on a pre/post test basis:

a) academic aspirations: What is the highest academic degree you wish to obtain?
b) self-assessment of skills: How well prepared do you feel in the following areas?

1) Mathematics skills
2) Writing skills
3) Reading skills
4) Study skills (note taking, text reading, outlining)
5) Musical and artistic skills
6) Library research skills
7) Time management skills
8) Science
9) History, social science
10) Art, music, literature appreciation
11) Decision-making skills
12) Career and college major plans

Analysis and Limitations of the Data

In this study, the main questions of interest involve the amount and direction of change in each of these variables: self esteem, self assessment of academic and non-academic skills, and academic aspirations. For this reason, it is necessary to obtain both pre and post data for each subject. Unfortunately, the number of subjects responding to both pre and post measures was quite low. Only 38% of all TRIO students and 28% of the control group completed both pre and post administration. Due to this low response rate, analyses of the data are strictly descriptive in nature and no attempt to generalize will be made beyond speculation about patterns and implications of the data for further research.

Results

Self Esteem

Student responses to the Janis-Field inventory measuring self esteem are summarized in Table I. The mean pre test scores for TRIO and Control group students do not differ greatly. There is some indication of wider variation within the TRIO groups with ICS students displaying higher entry levels of self esteem than either Tutoring or Counseling students with Counseling students reflecting the lowest level of all groups.

On the post test scores, all groups showed a positive growth in mean self esteem scores. ICS and Counseling groups show the most growth and, overall, TRIO students have slightly higher self esteem at the end of the year than the Control group.

For the retrospective pre test averages, all groups set retrospective pre test scores at levels below their post test averages, indicating an awareness of positive growth in self esteem.

Two types of change scores were identified, actual changes in self esteem (post test scores - pre test scores), and perceived changes in self esteem (post test scores - retrospective pre test scores). All cases, actual and perceived, indicate positive growth in self esteem over the year.

Subjects were very accurate in their ability to recall their feelings after a period of nine months (i.e., difference between actual and perceived). The ability to recall feelings was not consistent across groups. Tutoring students were the most accurate. Control group and ICS students were more pessimistic, recalling lower self esteem than was actually reflected in pre test scores, and Counseling students were more optimistic, recalling higher levels of esteem than were evident in the pre test scores.

Self Assessment of Academic and Non-Academic Skills

The pre and post averages for student self assessment are presented in Table II.

Pre test self assessments show Counseling and Control groups with the most confidence in their overall preparedness and ICS and Tutoring groups with less confidence.

Post test self assessments show ICS and Counseling groups with increased confidence in all areas, but with Counseling and Control group scores lower on post tests in four areas from where they stood on the pre test.

The areas showing greatest improvement for all groups were math and study skills. The least improvement occurred in music and art skills, and art, music, and literature appreciation.

The ICS students exhibit the most marked improvement in confidence, particularly in math, study skills, library and research skills, and time management.

Changes in Academic Aspirations

Pre and post levels of academic aspirations are displayed in Table III.

- Pre test aspirations appear similar for TRIO groups, but higher for Control group students
- Post test aspirations show higher levels of aspiration in all groups with the exception of Tutoring students. Tutoring students broke down into two groups, with a 16% increase in those aspiring toward certificates and a 20% increase in those aspiring toward masters and doctorates.
- Control group students exhibit higher aspirations on pre tests, and ICS and Control students show highest aspirations on the post test.

Discussion

While the results in this study are extremely speculative due to the low response rates, all students appear to be heading toward the desired outcomes. Specifically, there are positive changes in self esteem, self assessment of abilities and academic aspirations. Differences between TRIO and Control group students are not evident. ICS students alone appear to be making the most positive gains in all areas.

The area of non-academic factors influencing academic success in disadvantaged students may be a valuable area for continued research. Recommendations for further exploration include: using non-academic factors as predictors of success, growth in self esteem and its relationship to academic achievement, and the role of self assessment and aspirations in academic success.

TABLE I

Mean Pre Test, Retrospective Pre Test, and Post Test Scores for Each Group on the Janis-Field Self Esteem Scale (on a 5-point scale where 5 = high self esteem and 1 = low self esteem)

	ICS (N = 42)	Counseling (N = 25)	Tutoring (N = 25)	Control (N = 15)	TRIO Total (N = 92)
Pre Test Mean Score	3.72	3.55	3.34	3.52	3.57
Retrospective Pre Test Mean Score	3.55	3.64	3.30	3.41	3.51
Post Test Mean Score	4.03	3.87	3.51	3.77	3.84
Actual Changes in Self Esteem. Mean Change Score 1 (Pre Test - Post Test)	+.31	+.32	+.17	+.25	+.27
Perceived Changes in Self Esteem. Mean Change Score 2 (Post Test - Retrospective Pre Test Score)	+.48	+.23	+.21	+.36	+.33

Note: Includes only students completing both Pre *and* Post measures.

TABLE II

Changes in Self Assessment of Academic and Non-Academic Skills (mean pre and post test ratings on a 3-point scale; 3 = very well prepared, 2 = fairly well prepared, 2 = not well prepared)

	ICS (N = 40)		Counseling (N = 26)		Tutoring (N = 19)		Control (N = 12)		TRIO Total (N = 85)	
	$\overline{X}$ Pre	$\overline{X}$ Post	$\overline{X}$ Pre	$\overline{X}$ Post	$\overline{X}$ Pre	$\overline{X}$ Post	$\overline{X}$ Pre	$\overline{X}$ Post	$\overline{X}$ Pre	$\overline{X}$ Post
Mathematics skills	1.59	2.05	1.73	1.92	1.51	1.89	1.58	2.08	1.62	1.98
Writing skills	1.93	2.38	2.19	2.15	1.68	1.84	2.00	2.08	1.95	2.19
Reading skills	1.98	2.28	2.23	2.42	1.95	2.26	2.33	2.50	2.07	2.32
Study skills	1.59	2.18	2.00	2.19	1.58	1.84	1.83	2.25	1.71	2.11
Music & artistic skills	1.71	1.88	1.92	1.88	1.63	1.64	1.83	1.58	1.76	1.83
Library & research skills	1.37	1.98	1.88	2.00	1.52	1.58	2.00	2.00	1.56	1.90
Time management	1.54	2.20	1.88	1.85	1.63	1.89	2.08	1.83	1.66	2.02
Science	1.66	1.78	1.92	2.00	1.74	2.00	2.08	2.25	1.76	1.90
History, social science	1.83	1.98	2.00	1.96	1.58	1.79	2.08	2.25	1.83	1.93
Art, music, literature appreciation	2.05	2.13	1.96	1.88	1.63	1.74	2.27	2.25	1.93	1.97
Decision making skills	2.15	2.15	2.15	2.23	1.84	2.10	2.16	2.25	2.08	2.16
Career & college major plans	1.98	2.21	2.07	2.00	1.58	2.00	2.25	1.83	1.92	2.10

TABLE III

Changes in Academic Aspirations

	ICS (N = 40)		Counseling (N = 25)		Tutoring (N = 19)		Control (N = 12)		TRIO Total (N = 84)	
	% Pre	% Post	% Pre	% Post	% Pre	% Post	% Pre	% Post	% Pre	% Post
None	3%	0%	4%	0%	5%	5%	0%	0%	4%	1%
Certificate	5%	3%	4%	0%	0%	16%	0%	0%	4%	5%
Associate	8%	3%	8%	28%	11%	0%	25%	8%	8%	10%
Bachelors	43%	28%	48%	24%	47%	47%	42%	33%	45%	31%
Masters	33%	43%	28%	36%	26%	16%	33%	33%	30%	35%
Doctorate	3%	20%	8%	4%	6%	16%	0%	25%	5%	14%
Other	3%	0%	0%	8%	5%	0%	0%	0%	2%	2%

CHAPTER VII
STUDENT SATISFACTION SURVEY AND COURSE EVALUATIONS

Student Satisfaction Survey

To give students the opportunity to personally evaluate the TRIO Program, ICS students were asked to respond to a Student Satisfaction Survey. The survey was constructed through Staff selection from a pool of items based on program goals and objectives.

Method

The survey was administered to ICS students as part of the end-of-the-year post testing process. Of the ninety-seven (97) students contacted, fifty-five (or 57%) responded to the survey.

Results

The questions and results are displayed in Table I. In general, students were satisfied with the TRIO Program, as can be seen in item 8 (overall, I am satisfied with the TRIO Program, with a mean of 3.78 on a 5-point scale, 5 indicating strong agreement). They would also strongly recommend the program to friends and relatives (item 9, mean 4.46). The staff was viewed as very supportive and accessible (items 3 and 4, means 4.57 and 3.96 respectively).

On a personal note, students felt they were more confident and motivated, had greater organizational and long range planning skills, and were more aware of University and community resources as a result of being in the TRIO Program (items 2, 10, 5, 7, and 11; means 3.48, 3.64, 4.26, 3.43 and 4.07 respectively).

Conclusions

The students responding to the survey gave their vote of confidence to the TRIO Program. Statistically, this response may not be generalized to the entire ICS population due to the relatively low response rate.

TABLE I

Student Satisfaction Survey 1981-1982
Results

Note: When this survey was administered, 50% of the items were negatively stated and 50% positively stated. To facilitate interpretation, the results are displayed using all positive statements, with statistics adjusted accordingly.

All items used the following scale:

strongly disagree	disagree	agree	strongly agree	very strongly agree
1	2	3	4	5

---

		n	mean	median	mode
1.	The TRIO Program helped me to stay in school.	53	3.32	3	3
2.	I have more confidence in myself as a student now than I did last fall as a result of the TRIO Program.	54	3.48	3	3
*3.	The TRIO staff has been very supportive of me in my efforts as a student.	53	4.57	5	5
4.	The TRIO staff has been accessible to me when I needed help.	54	3.96	4	5
*5.	My skills in organization have improved this year from being in the TRIO Program.	53	4.26	4	4
*6.	The TRIO Program has helped me to make career plans.	54	4.11	4	5
7.	My long-range planning skills have improved this year as a result of participating in the TRIO Program.	54	3.43	4	3
8.	Overall, I am satisfied with the TRIO Program.	55	3.78	4	5
*9.	I would recommend the program to friends and relatives.	54	4.46	5	5
*10.	I am more motivated to continue school now than I was last fall.	53	3.64	4	4
11.	Because of the TRIO Program, I am more aware of University and community resources (such as financial aid, day-care, and student support services) and how to use them	55	4.07	4	5

*Stated in negative terms on the scale actually used in the evaluation.

Course Evaluations - The Student Opinion Survey

At the close of each quarter, the instructors of TRIO classes and Survival Seminars conducted student opinion surveys regarding class content, presentation, and overall effectiveness. At the minimum, these surveys contained the following questions:

a) How much have you learned in this course thus far?

b) All things considered, how would you rate this instructor's teaching in this course?

c) All things considered, how would you rate this course?

Instructors were encouraged to add additional questions.

The TRIO students rated all of their courses and instructors favorably. Across all TRIO classes, students felt they had learned very much in their courses, with a 3.61 average on a five-point scale (1 = little and 5 = an exceptional amount). Their instructors were rated very good, with an average of 4.02 on a five-point scale (1 = unsatisfactory and 5 = excellent) and the courses were rated good with an average of 3.83 on the same five-point scale.

A sampling of the courses is presented here.

Student Opinion Survey

Course: Writing Lab: Personal Writing — 1421
Title — Number

Instructor: Collins

Quarter: Fall — 1981
Quarter — Year

Number of Students Responding: 18

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
1. How much have you learned in this course thus far?	4.10	4	4	.82	2	5

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

2. All things considered, how would you rate this instructor's teaching in this course?	4.60	5	5	.50	4	5
3. All things considered, how would you rate this course?	4.23	4	4	.59	3	5

Questions 4 through 15 use the following 7-point scale:

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree	most strongly agree

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
4. The instructor presents the subject matter clearly.	6.45	7,6	7	.68	5	7
5. I have achieved a fundamental grasp of what the course material is about.	6.24	6	7,6	.76	5	7
6. The instructor seems well prepared for class.	6.33	7	7	.63	5	7
7. The instructor is approachable.	6.62	7	7	.76	4	7
8. The instructor clearly defines student responsibilities in the course.	6.31	6,7	7	.75	5	7
9. The instructor gives the impression of respecting students as persons.	6.43	6	6	.67	5	7
10. The instructor provides enough criticism of my work.	6.31	6,7	7	.75	5	7
11. The instructor provides good criticism of my work.	6.42	7	7	.76	5	7
12. The instructor gives encouragement to me as a student.	6.62	7	7	.47	5	7
13. The assignments seem carefully graded.	6.43	7,6	7	.68	5	7
14. The procedures for determining grades were appropriate for this course.	6.22	7,6	7	.85	5	7
15. I can write more effectively as a result of this course.	6.56	7	7	.68	5	7

*This Page 2 used by Collins (1-421).

Student Opinion Survey

Course: Writing: Fundamentals of Usage/Style (Title) 1411 (Number)

Instructor: Behling

Quarter: Fall (Quarter) 1981 (Year)

Number of Students Responding: 22

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
1. How much have you learned in this course thus far?	3.74	4	4	.39	2	5

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatis-factory	marginal	fairly good	very good	excellent

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
2. All things considered, how would you rate this instructor's teaching in this course?	4.13	4	4	.67	3	5
3. All things considered, how would you rate this course?	4.12	4	4	.62	3	5

Page 2*

Questions 4 through 15 use the following 7-point scale:

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree	most strongly agree

	Mean	Median	Mode	Standard. Deviation	Minimum	Maximum
4. The instructor presents the subject matter clearly.	6.41	6	6	.99	4	7
5. I have achieved a fundamental grasp of what the course material is about.	5.91	6	6	.81	4	7
6. The instructor always had work for me to do.	5.23	6	6	1.4	2	7
7. The instructor is approachable.	6.44	7	7	1.0	3	7
8. The instructor clearly defines student responsibilities in the course.	6.20	7	7	1.1	4	7
9. The instructor gives the impression of respecting students as persons.	6.31	7	7	1.3	1	7
10. The instructor provides enough criticism of my work.	6.22	7,6	7	.94	4	7
11. The instructor provides good criticism of my work.	6.13	6,7	7	.76	5	7
12. The instructor gives encouragement to me as a student.	6.42	7	7	.78	4	7
13. The assignments seem carefully graded.	6.32	7	7	.82	5	7
14. The procedures for determining grades were appropriate for this course.	6.09	6	6,7	.79	5	7
15. I can write more effectively as a result of this course.	6.14	6	6	.76	5	7

*This Page 2 used by Behling (1-411) and Hattenhauer (1-421).

Student Opinion Survey

Course: Writing Lab: Personal Writing (Title) 1421 (Number)

Instructor: Hattenhauer

Quarter: Fall (Quarter) 1981 (Year)

Number of Students Responding: 23

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatis-factory	marginal	fairly good	very good	excellent

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
1. How much have you learned in this course thus far?	3.92	4	4	.80	2	5
2. All things considered, how would you rate this instructor's teaching in this course?	3.81	4	4	.64	3	5
3. All things considered, how would you rate this course?	4.00	4	4	.62	3	5

Questions 4 through 15 use the following 7-point scale:

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree	most strongly agree

	Mean	Median	Mode	Standard. Deviation	Minimum	Maximum
4. The instructor presents the subject matter clearly.	5.63	6	6	1.4	3	7
5. I have achieved a fundamental grasp of what the course material is about.	6.20	6	6,7	1.1	4	7
6. The instructor always had work for me to do.	5.92	6	7	1.0	4	7
7. The instructor is approachable.	6.24	6	7	.82	5	7
8. The instructor clearly defines student responsibilities in the course.	6.41	7	7	.65	5	7
9. The instructor gives the impression of respecting students as persons.	6.13	6	7,6	.97	3	7
10. The instructor provides enough criticism of my work.	6.32	6	7	.74	5	7
11. The instructor provides good criticism of my work.	6.24	6	7	.87	5	7
12. The instructor gives encouragement to me as a student.	6.11	6	6	.90	4	7
13. The assignments seem carefully graded.	6.13	6	7	.85	5	7
14. The procedures for determining grades were appropriate for this course.	6.39	7	7	.71	5	7
15. I can write more effectively as a result of this course.	6.44	7	7	.65	5	7

✓

*This Page 2 used by Behling (1-411) and Hattenhauer (1-421).

Student Opinion Survey

Course: Survival Seminar (Title) 1702-5 (Number)

Instructor: Felland/Harris

Quarter: Fall (Quarter) 1981 (Year)

Number of Students Responding: 23

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
1. How much have you learned in this course thus far?	3.4	3	3	.77	2	5

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
2. All things considered, how would you rate this instructor's teaching in this course?	3.8	3	3	.59	3	5
3. All things considered, how would you rate this course?	3.6	3	3	.65	3	5

Student Opinion Survey

Course: Survival Seminar — Title; 1702-6 — Number

Instructor: Lawson

Quarter: Fall — Quarter; 1981 — Year

Number of Students Responding: 32

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
The first question uses the following 5-point scale: 1 little 2 some 3 much 4 very much 5 exceptional amount						
1. How much have you learned in this course thus far?	3.3	3	3	.80	2	5
Questions 2 and 3 use the following 5-point scale: 1 unsatisfactory 2 marginal 3 fairly good 4 very good 5 excellent						
2. All things considered, how would you rate this instructor's teaching in this course?	4.2	4	4	.63	3	5
3. All things considered, how would you rate this course?	3.9	4	4	.91	2	5

Student Opinion Survey

Course: Survival Seminar (Title) 1702-7 (Number)

Instructor: Stewart/Gilbert

Quarter: Fall (Quarter) 1981 (Year)

Number of Students Responding: 19

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
The first question uses the following 5-point scale: 1 little 2 some 3 much 4 very much 5 exceptional amount						
1. How much have you learned in this course thus far?	3.74	4	3,4	.85	2	5
Questions 2 and 3 use the following 5-point scale: 1 unsatisfactory 2 marginal 3 fairly good 4 very good 5 excellent						
2. All things considered, how would you rate this instructor's teaching in this course?	4.32	4	4	.65	3	5
3. All things considered, how would you rate this course?	4.1	4	4	.72	3	5

Student Opinion Survey

Course: Urban Problems (Title) 1212 (Number)

Instructor: Smith

Quarter: Fall (Quarter) 1981 (Year)

Number of Students Responding: 79

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
1. How much have you learned in this course thus far?	3.62	4	4	.92	2	5

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatis- factory	marginal	fairly good	very good	excellent

2. All things considered, how would you rate this instructor's teaching in this course?	3.83	4	4	.91	2	5
3. All things considered, how would you rate this course?	3.72	4	4	.83	1	5

Questions 4 through 15 use the following 7-point scale:

1	2	3	4	5	6	7
strongly disagree	moderately disagree	slightly disagree	slightly agree	moderately agree	strongly agree	most strongly agree

Number of students responding: 58

		Mean	Median	Mode	Standard Deviation	Minimum	Maximum
4.	The instructor clearly presents the subject matter.	5.11	6,5	6	1.6	1	7
5.	The readings are meaningful.	5.31	5	6	1.4	1	7
6.	Adequate feedback about my performance on tests was readily available.	5.00	5	5	1.6	1	7
7.	I have achieved a fundamental grasp of what the course material is about.	5.42	6	6	1.4	1	7
8.	I have become more interested in the material of this course.	5.30	6	6	1.64	1	7
9.	The instructor is approachable.	5.90	6	7	1.15	3	7
10.	The instructor is aware when students are having difficulty understanding.	4.80	5	6	1.55	1	7
11.	The instructor provides enough criticism of my work.	4.80	5	17	1.65	1	7
12.	The instructor enjoys working with students.	6.10	6	7	.99	3	7
13.	The instructor stimulates me to think.	5.98	6,7	7	1.36	1	7
14.	I have done all or almost all of the assigned readings up to this point.	4.96	5	5	1.73	1	7
15.	The combination of this class with a writing class improved my performance in both classes.	5.40	6	7	1.74	1	7

*This Page 2 used by Smith (1-212)

Student Opinion Survey

Course: General Arts (Title) GC 1311/3311, Section 2 (Number)

Instructor: Jerry Gates

Quarter: SP (Quarter) 82 (Year)

Number of Students Responding: 30

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
1. How much have you learned in this course thus far?	3.43	4	4	.94	2	5

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
2. All things considered, how would you rate this instructor's teaching in this course?	3.93	4	4	.87	2	5
3. All things considered, how would you rate this course?	3.41	3	4	.73	2	5

Student Opinion Survey

Course: Intermediate Algebra (Title) 1445-2 (Number)

Instructor: William Schwabacher

Quarter: SP (Quarter) 82 (Year)

Number of Students Responding: 10

The first question uses the following 5-point scale:

1	2	3	4	5
little	some	much	very much	exceptional amount

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
1. How much have you learned in this course thus far?	3.6	3.5	3	.97	2	5

Questions 2 and 3 use the following 5-point scale:

1	2	3	4	5
unsatisfactory	marginal	fairly good	very good	excellent

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
2. All things considered, how would you rate this instructor's teaching in this course?	4.3	4.5	5	.82	3	5
3. All things considered, how would you rate this course?	4.0	4	4	.67	3	5

Student Opinion Survey

Course: Career Planning (Title) 1502-5 (Number)

Instructor: Thomas Skovholt

Quarter: SP (Quarter) 82 (Year)

Number of Students Responding: 16

	Mean	Median	Mode	Standard Deviation	Minimum	Maximum
The first question uses the following 5-point scale: 1 little, 2 some, 3 much, 4 very much, 5 exceptional amount						
1. How much have you learned in this course thus far?	3.56	3.5	3	.81	2	5
Questions 2 and 3 use the following 5-point scale: 1 unsatisfactory, 2 marginal, 3 fairly good, 4 very good, 5 excellent						
2. All things considered, how would you rate this instructor's teaching in this course?	3.88	4	4	.72	3	5
3. All things considered, how would you rate this course?	3.69	4	3,4	.70	3	5

CHAPTER VIII
SIGN LANGUAGE CLASSES AND HEARING IMPAIRED STUDENTS

by Evelyn Harris and Sherry Read

Introduction

One of the new goals of the TRIO/Special Services Program this year was to heighten the awareness of General College staff and faculty of hearing impaired students and increase the staff's communication skills by offering sign language classes. One of the TRIO counselors, Evelyn Harris, born deaf, recently graduated from General College with a BA degree in Human Services. She offered two sign language classes during the 1981-1982 academic year, one for GC staff and the other for credit through the Arts, Communication, and Philosophy Division of General College.

This section includes a course proposal and evaluation for the Introduction to American Sign Language and the Deaf Community class (level one) offered to General College students. In addition, a summary of interviews conducted with the three hearing impaired TRIO students is presented. These interviews focus on the TRIO/Special Services Program and how it can better meet the needs of deaf students.

Hearing Impaired Students

There were three hearing impaired students who participated in the TRIO program this year.

Robert, 40 years old, is married with three daughters, both wife and daughters also deaf. Originally, Robert is from Faribault, Minnesota, where he attended a school for the deaf through high school. Currently, he works for the Minnesota Deaf Services Division acting as a liaison between the state legislature and the deaf community. As a result of this work he is interested in studying, writing, and politics. Because Robert works full time, he is now taking night school classes.

Kevin is twenty-five years old. He is originally from South Dakota where he attended a school for the deaf. After high school, Kevin spent some time working in a factory. He is interested in art and also chemical dependency counseling as possible careers.

Gary is twenty-eight years old and recently became hard of hearing as a result of an auto accident. At the time of the accident, he was working for Univac, although he is presently unemployed and living with his parents. He is interested in pursuing photography as a possible career. Gary left school last winter and spent some time traveling. He is no longer in school for financial reasons.

These students were interviewed to find out how they felt about the TRIO program and the extent to which it met their needs.

On the positive side, they felt that the TRIO program was helpful and the staff supportive. The program enabled them to feel more comfortable on campus and with other students.

Some ideas for the program included:

- more counseling, possibly small group counseling for deaf students only,
- more enthusiasm in Survival Seminars, especially in afternoon classes,
- deaf teachers for deaf students so that students can communicate in sign language without interpreters,
- greater awareness stimulated in TRIO staff and students to special needs of deaf students, especially in understanding sign language as a first language, and
- availability of night classes.

Using performance alone as an indicator of the TRIO program's success in aiding deaf students leaves the program in a less than impressive light. One student is no longer in school, two students completed only one daytime class, and one student accumulated a large number of incomplete grades. We could speculate about causes for the lack of success, but it would perhaps be more profitable to really look at the University services provided to deaf students, their strengths and weaknesses, and how they could be improved.

Suggestions have been made to provide notetaking services for deaf students and extend the interpreter service for both students and deaf faculty and staff.

Course: Introduction to American Sign Language and the Deaf Community (Level I)

Credits: 4

Course Description:

Topics include history of American Sign Language (ASL), the survival of ASL, historical change in ASL signs, ASL as the deaf people's first language, Pidgin Sign English (codes for English), basic sign language, rules for ASL sign structure, body movement, facial expression, and a discussion of common myths associated with deafness. Readiness activities, such as training the eyes and the body, will also be included to help students to "loosen up" and encourage the development of the visual and motor skills needed for ASL. The course will be offered for 4 credits.

Rationale:

1. During my four years as a student in General College, my interpreters were constantly asked by hearing students where they could learn sign language. There is a strong interest among students in General College to learn sign.

2. There is an increasing number of hearing impaired students in the General College. Many of their hearing peers would like to be able to communicate with them.

3. In the United States, ASL is the third most used language, following English and Spanish. As a second language for students, ASL offers much opportunity for actual use.

4. Learning ASL as a second language will allow students to explore a minority culture in the United States, enhancing their ability generally to understand cultural differences.

Logistics:

1. The course could be taught by one person who has expert ASL skills in language teaching experience and knowledge of the related cultural areas and some linguistics experience. The use of two instructors would be preferable, with one being a native signer and the other having background in linguistics. Again, both would need strong familiarity with deafness and would need some teaching experience. Precedence for the "native-linguistics" co-teaching method is found at some institutions and has proven to be very successful.

2. Four hours a week, two hours per day for two days a week, would seem to be a sufficient amount of time for an introductory course.

3. From my past teaching experience I would recommend A Basic Course in American Sign Language by Tom Humphries, Carol Padden, and Terence J O'Rourke (T. J. Publishers, 1980), as the reference text for signs. The second text would be Sign Language and the Deaf Community by Charlotte Robbin Battison (National Association of the Deaf, 1980).

Objectives:

1. To learn basic American Sign Language at a beginning level.
    - A. Vocabulary
    - B. Syntax
    - C. Cheremes

2. To identify historical origins and change in ASL signs.
    - A. Compare older signs (around 1910) to modern signs today
    - B. Tendency to centralization
    - c. Tendency to fluidity, smoother and "easier" to sign
    - D. Tendency to higher visibility

3. To develop skill at a basic level for communication with hearing impaired people.

4. To strengthen the ability of hearing students to socialize with their hearing impaired peers.

5. To learn the importance of non-verbal cues in ASL.
    - A. Facial expression
    - B. Body language
    - C. Use of space
    - D. Body shift

6. To identify common myths associated with deafness.
    - A. All hearing-impaired persons have the same basic disability?
    - B. A good hearing aid can help any hearing impaired person understand the spoken word?
    - C. With good teachers and practice, the average deaf person can learn to lip-read and speak well enough to take part in a casual conversation?
    - D. Deaf people have sharper vision than people who can hear normally?
    - E. Certain personality traits can be attributed to the deaf as a group?

Assignments:

1. Read Sign Language and the Deaf Community, by Charlotte Baker and Robbin Battison.

2. Learn sign language with A Basic Course in American Sign Language, by T. Humphries, C. Padden, and T. J. O'Rourke.

Evaluation of Students Based On:

1. Quizzes
2. Mid-Quarter
3. Final Exam
4. Attendance

Course Evaluation

The instructor will develop an evaluation form based partly on standardized models and partly designed to fit the unique needs of a course in a visual language. The evaluation will be used as a learning tool for the instructor to assess the course in terms of how it can be improved for future course offerings.

Final Evaluation

GC 1468 Special Topics. An Introduction to American Sign Language and the Deaf Community. Spring 1982.

Number of Students Responding: 24

Introduction:

Students were asked to rate (on a five-point scale) several dimensions of GC 1468. Specifically, the topics examined were: overall course, instructor, assistant, speakers, textbooks, handouts, exams. student's motivation, and movies.

In addition, students responded to a number of open-ended questions concerning their likes and dislikes in the course as well as their ideas for improvement. Students also examined their understanding of deafness and sign language.

Student Opinion Survey Supplement:

1. The whole course

1/	/Unsatisfactory	N = 24
2/	/Fair	Mean = 4.38
3/X	(1)/Good	Median = 4
4/XXXXXXXXXXXXX	(13)/Very Good	Mode = 4
5/XXXXXXXXXX	(10)/Excellent	

2. The instructor's ability to get you interested in the subject matter

1/	/Unsatisfactory	N = 24
2/	/Fair	Mean = 4.79
3/X	(1)/Good	Median = 5
4/XXX	(3)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXXXX	(20)/Excellent	

3. The instructor's clarity and organization in teaching this course

1/	/Unsatisfactory	N = 24
2/	/Fair	Mean = 4.46
3/X	(1)/Good	Median = 4.5
4/XXXXXXXXXXX	(11)/Very Good	Mode = 5
5/XXXXXXXXXXXX	(12)/Excellent	

4. The instructor's teaching of this course

1/	/Unsatisfactory	N = 24
2/	/Fair	Mean = 4.83
3/	/Good	Median = 5
4/XXXX	(4)/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXXXX	(20)/Excellent	

5. The instructor's use of examples and illustrations

1/		/Unsatisfactory	N = 24
2/		/Fair	Mean = 4.71
3/		/Good	Median = 5
4/XXXXXXX	(7)	/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXX	(17)	/Excellent	

6. The instructor encouraged questions and discussion

1/		/Unsatisfactory	N = 24
2/		/Fair	Mean = 4.75
3/		/Good	Median = 5
4/XXXXXX	(6)	/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXX	(18)	/Excellent	

7. The instructor's rapport with you as a student

1/		/Unsatisfactory	N = 24
2/X	(1)	/Fair	Mean = 4.33
3/XXX	(3)	/Good	Median = 5
4/XXXXXXX	(7)	/Very Good	Mode = 5
5/XXXXXXXXXXXXX	(13)	/Excellent	

8. The overall performance of the instructor's assistant

1/		/Unsatisfactory	N = 24
2/		/Fair	Mean = 4.79
3/X	(1)	/Good	Median = 5
4/XXX	(3)	/Very Good	Mode = 5
5/XXXXXXXXXXXXXXXXXXXX	(20)	/Excellent	

9. The effect of the movie shown in this course

1/		/Unsatisfactory	N = 24
2/XX	(2)	/Fair	Mean = 4.04
3/XXX	(3)	/Good	Median = 4
4/XXXXXXXXX	(9)	/Very Good	Mode = 5
5/XXXXXXXXXX	(10)	/Excellent	

10. The effect of the speaker

1/		/Unsatisfactory	N = 22
2/XXX	(3)	/Fair	Mean = 3.41
3/XXXXXXXX	(8)	/Good	Median = 3.5
4/XXXXXXXXXX	(10)	/Very Good	Mode = 4
5/X	(1)	/Excellent	

11. The effect of the textbook Sign Language and the Deaf Community

1/		/Unsatisfactory	N = 23
2/XX	(2)	/Fair	Mean = 3.61
3/XXXXXXXX	(8)	/Good	Median = 4
4/XXXXXXXXXX	(10)	/Very Good	Mode = 4
5/XXX	(3)	/Excellent	

12. The textbook *A Basic Course in American Sign Language*

1/	/Unsatisfactory	N = 23
2/XX	(2)/Fair	Mean = 4.09
3/XXX	(3)/Good	Median = 4
4/XXXXXXXXX	(9)/Very Good	Mode = 4,5
5/XXXXXXXXX	(9)/Excellent	

13. The quality of the handouts

1/	/Unsatisfactory	N = 23
2/X	(1)/Fair	Mean = 3.70
3/XXXXXXX	(7)/Good	Median = 4
4/XXXXXXXXXXXXX	(13)/Very Good	Mode = 4
5/XX	(2)/Excellent	

14. The overall quality of exams

1/	/Unsatisfactory	N = 23
2/	/Fair	Mean = 4.04
3/XXXX	(4)/Good	Median = 4
4/XXXXXXXXXXXXXX	(14)/Very Good	Mode = 4
5/XXXXX	(5)/Excellent	

15. Your own motivation to do as well as you could in this course

1/	/Unsatisfactory	N = 23
2/	/Fair	Mean = 4.00
3/XXXXXX	(6)/Good	Median = 4
4/XXXXXXXXXXX	(11)/Very Good	Mode = 4
5/XXXXXX	(6)/Excellent	

16. The instructor's pace of instruction

1/X	(1)/Too slow	N = 23
2/X	(1)/Slow	Mean = 3.13
3/XXXXXXXXXXXXXXXX	(16)/Moderate	Median = 3
4/XXXX	(4)/Little too fast	Mode = 3
5/X	(1)/Fast	

Summary of Answers to Open-Ended Questions

1. In what ways and how much do you feel this course has contributed to your education?

   A. The most frequent responses included: (mentioned more than 5 times)

      --broaden horizons
      --realize other cultures/communities
      --able to communicate with deaf people
      --would like to take more classes
      --helped me lots/contributed a lot to my education

   B. Additional responses: (mentioned by 4 or fewer students)

      --importance of language
      --aware of the problems deaf people face in education
      --rekindled interest in sign language
      --don't pity deaf people any longer

2. What were things you liked best about this class? Least about this class?

   A. Liked best:

      1. The most frequent responses (5 or more):

         --Evie and Karen are so very personable, cheerful and alive
         --enjoyed the instructor as she is friendly and enthusiastic

      2. Less frequent responses (4 or fewer):

         --excellent class
         --discussions where everyone got involved
         --right size (students)
         --group work/practicing signs
         --learning a new language
         --lectures on the Deaf Community
         --movie
         --instructor shared her experiences
         --instructor made everyone feel comfortable about signing and making mistakes
         --like to learn how to express myself with deaf people

   B. Liked least:

      1. The most frequent responses (5 or more):

         --not enough time/need more class hours

      2. Less frequent responses (4 or fewer):

         --need more speakers
         --levels of different students' knowledge of signing
         --movie
         --time of day

B. Liked least, continued

- --didn't like going so fast
- --apathy of some students and few not knowing the assignment
- --people would make more of an effort to be on time
- --not having the alphabet required more practices

3. List two or three ways the class has helped you in your awareness of understanding deafness.

Most students felt that this course really helped them to be more aware of the Deaf Community and the values of Deaf Culture. They also realized that American Sign Language is a separate language because it has its own structure and rules like other languages. Some students developed a new understanding as to why deaf people want to protect their language and how ASL is closely related to the Deaf Culture.

A few students mentioned that they now are sensitive to the needs of deaf people in the educational settings and other places. They gained insight to the specific problems of deaf people and the different ways that deaf people have been oppressed in the past.

Two students mentioned that now some "myths" about deafness have been cleared up. Two students mentioned that this course helped them to realize that deafness does not have to be a handicap.

4. Do you feel you now have a better understanding of sign language?

Eighteen students felt that they had a better understanding of sign language from this course.

Other students mentioned:

- --a basework to continue building on
- --with work, I can reach a level of understanding
- --realize that signs fit with the movement and expression - not only the plain sign
- --gave me an understanding of ASL and the differences between ASL and signed exact English
- --yes, very difficult at first to learn, but with practice and continuous work it becomes more natural and easy
- --used to think sign language was very awkward, but now I think it is a very beautiful language
- --can see why deaf people would like to keep it in their culture

5. Suggestions to improve the course

The most frequent responses (5 or more) were related to the length of class and practice time. Most students would prefer a longer class time allowing them more opportunity for individual and group practice.

The time constraint limited:

5. Continued

--discussions after a lecture
--opportunity for teacher to work with small groups based on students' expressive and receptive skills
--activities such as field trips, skits
--the addition of silent days
--more speakers (most speakers wanted more than 45 minutes to allow for their presentation and discussion time)

CHAPTER IX
SUMMER INSTITUTE

Introduction

The University of Minnesota Summer Institute is a six week program designed to help low-income minority students bridge the gap between high school or junior college and university life. This program is a cooperative effort between the Office of Minority and Special Student Affairs (OMSSA), the College of Liberal Arts (CLA), the University Summer Session, General College, and the TRIO/Special Services Program. The Summer Institute provides new students with a head start in college prior to fall quarter, where they may sharpen their basic academic skills and familiarize themselves with the university campus and its inner workings. Students receive orientation, individual counseling, and classroom instruction in basic skills, and tutoring if necessary. All of the courses are taken for college credit. Thirty-two students received referrals to other agencies for health, employment and legal services.

1982 Student Demographics

During the Summer of 1982, one hundred and thirty-one students participated in the Summer Institute. One hundred and eighteen (90%) of the students met the federal low income criteria. Fifty-six percent were male and forty-four percent female. The ethnic composition of the students was as follows:

Ethnic Group	Number	% of Total
Asian American	49	37%
Black	54	41
Hispanic	19	15
American Indian	9	7
White	0	0
Total	131	100%

Of the one hundred and thirty-one students, one hundred and five (80%) were educationally deprived, one was physically handicapped (1%) and one hundred and twenty-six (96%) had a cultural need. All of the 131 students completed the full summer program.

An extensive evaluation of this program and student progress during the 1982-1983 academic year is being conducted by Bob Etcioni of the Office of Minority and Special Student Affairs. The evaluation results will be available through him in late 1983.

CHAPTER X
CASE STUDIES AND EXIT REVIEWS

Case Study Interviews Conducted by Gary Simonson

Introduction

The General College Special Services evaluation relies heavily on the use of aggregate data which compares groups of students on a number of variables. This is also true of most research and evaluation. While this type of information is useful, by its very nature, it forces us to lose track of the individual. For this reason, the evaluation will also include a more in-depth look at three individual TRIO students (using a case study or n=1 methodology), so that a more well-rounded view of the program can be obtained. In addition, for the reader who is not familiar with the type of student that Special Services program typically serve, these case studies may provide some insight into the background of Special Services students.

Method

Subjects: The three subjects interviewed in this section, a male and two females, were selected based on staff recommendations of students who were fairly representative of the ICS/TRIO population.

Procedure: The subjects were interviewed using a semi-structured/open interview format. The primary questions of interest were:

1) Please describe yourself. What are your hobbies, educational background, hopes for the future, etc.?
2) How did you feel about school last fall when you started the TRIO program? Did your feelings change over the year?
3) Are you still in school? What are your plans?
4) What do you think about the TRIO program? Good points? Things that need improvement/change/addition?

The text of these interviews was then summarized into the following narratives.

Case Studies

Pamela Zappa is thirty years old, has two children, and is a soon-to-be single parent. She participated in the TRIO program primarily in Fall '81 working with the HELP Center parenting group. She found that:

> TRIO gave me a base to start my schooling on, helped to get to know people and make friends. It was nice to find out there were many students like myself ... to have unity with ... (and) it helped with the classes that I took. I could work (with) and talk about classes with other TRIO students.

Pamela is working as a teaching assistant this year for the TRIO Urban Problems class. She is in her sixth quarter of school, but has not decided upon a major yet, although she has some interest in the "University Without Walls" program. In her spare time, Pam likes to play the piano, read, and write.

Pam completed 32 credits with a 3.5 GPA during the 1981-82 academic year for a total of 56 credits at the University of Minnesota.

Percy McCoy lives in Cottage Grove, Minnesota, with his grandmother. He is single and has no children. He is currently attending Northwest Bible College. Eventually, Percy would like to become an evangelist, but until then he wants to get a BA in ministry (with a minor in business) and work for a non-profit organization.

When Percy entered college,

> My expectations were high. I began waiting for things to unify. Being religious, there weren't many chances to meet friends, and my social life was lacking. TRIO helped in having (a) feeling of unity and helped me fit in and realize there were other people in the same boat.

The primary benefits of the program for Percy were that "... the program helped me, and prevented me from sticking my neck out too much."

He also felt that the program helped him to pace himself so that he didn't "take too big of a load and get washed under by U of M circumstances."

In terms of program improvement, Percy recommended more support and monitoring of students' activities and direction and "an incentive program to help students achieve goals and monitor direction."

Overall, he felt the program was significant in getting him started at such a large university. The TRIO program offered encouragement and really made the difference in coming straight out of high school.

During the 1981-82 academic year, Percy completed 36 credits with a 2.39 GPA.

Gussie Willis is a single parent with one child. She is originally from Saint Louis, Missouri. She will be a junior winter quarter of the 1982-83 academic year with a major in public health and computer science.

Gussie says that,"TRIO helped me a lot because I was out of school (for) ten years. It helped me to start studying again. Advisors were helpful with class scheduling. Also, tutoring helped with class problems."

For the 1981-82 academic year, Gussie obtained a GPA of 2.33 for twenty-one credits.

After talking with these students, it becomes clear that these are people who feel good about themselves. They know who they are. These are some of the success stories. Now, what about students who did not complete the first year?

Exit Reviews

At the end of Spring quarter, each Survival Seminar counselor was asked to report on students who left the ICS program. For the 19 (19%) ICS students who left school before the end of Spring quarter, the following reasons were given for leaving:

Reason for Leaving School	Number	% of Total ICS Students (N = 102)
Parental Reasons	12	12%
Financial	4	4%
Attend Another School	3	3%
Total	19	19%

All students leaving the program had contact with their advisors before withdrawing from the University.

Conclusions

Obviously, the students described in these case studies did well in school. They feel that the TRIO Program played a major role in their academic success. While this experience does not reflect the experience of all TRIO students, it does provide some insight into the type of student served by Special Services and how they may benefit from the program.

For students leaving the ICS program, it is encouraging to note that all students had contact with advisors prior to leaving school and that a very high percent of the total group completed that first year at the University.

CHAPTER XI
SECOND YEAR FOLLOW-UP STUDY: 1980-81 TRIO SPECIAL SERVICES STUDENTS

Introduction/Background

The 1980-81 academic year was the first year of operation for the TRIO/Special Services Program. During the second year of the program, the opportunity is available to further test the program's effectiveness by tracking TRIO and Control students in their academic progress after completing the TRIO program. The major questions of interest continue to be: Did the students stay in school, and how successful were they, while not receiving special services?

After participating in the program for their freshman year, the 1980-81 TRIO students received grades which were comparable to a low income control group (who did not receive special services), even though they began school with less well developed basic skills (TRIO GPA, N's excluded = 2.79, Control GPA = 2.88). In addition, TRIO/Special Services students were more likely to stay in school (Fall '80 to Spring '81) than the control group (84% versus 68% respectively). TRIO students also completed a higher proportion of credits than did the control group (.78 versus .71 respectively) during the 1980-81 school year.

This section takes a look at TRIO students during their second year at the University of Minnesota.

Method

Subjects

The subjects of this study include the 1980-81 TRIO/Special Services students and a low income Control group randomly selected from TRIO-eligible students who did not receive special services. These students were broken down into four groups based on services utilized:

1) Integrated Course of Study (ICS)
2) Counseling students
3) Tutoring students
4) Control group students.

Procedure

The University files were checked each quarter to record the following information:

1) Registration status
2) Credits attempted (all)
3) Credits receiving grade (A-N)
4) Credits passed (A-D, S)
5) Course grades.

At the close of the 1981-82 academic year, this information was analyzed to determine: retention rates (percent of students in school), grade point average (GPA, two ways, with N's excluded and N's included, N = 0), and credit completion ratios (CCR1 = proportion of credits receiving grades, CCR2 = proportion of credits passed). The calculation of these statistics is described in detail in Chapter V.

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Results

Retention Rates

The retention rates for TRIO and Control group students are presented in Table I. No statistically significant difference was found between groups for the proportion of students remaining in school all three quarters of their second year ($\chi = 4.86$, df = 3, $\alpha = .05$). Twenty-seven percent (27%) of the Control group students and twenty-nine percent (29%) of TRIO students registered all three quarters. The Counseling group had the lowest retention rate (22% all three quarters with the Tutoring group maintaining the highest retention rate (36% all three quarters). Overall, more TRIO students did register each quarter than the Control group, indicating that some students took one or more quarters off during the year.

Grade Point Average

Cumulative grade point averages for each group are presented in Table II. For GPA (with N's included, N = 0), the Counseling group received the lowest mean (GPA = 1.62), with ICS receiving the highest (GPA = 2.07). For GPA (with N's excluded) very little difference was found between groups. In both grade point calculations, the Control group performed slightly better than the TRIO students.

Credit Completion

Credit completion data for each group are presented in Table II. The Control group received grades for 95% of the credits they attempted (CCR1), with ICS and Counseling students at 91% and Tutoring students receiving grades for 93% of their courses.

ICS students and Tutoring students both received passing grades for 74% of their credits, but the Counseling students only received grades for 59% of their classes, bringing the TRIO total to 70% compared to the Control at 71%.

The Control group also attempted and passed slightly more credits during the academic year than TRIO students (Attempted: Control = 28.4, TRIO = 26.36; and Passed: Control = 21.14, TRIO = 19.94).

Discussion

While TRIO students were more successful than would have been anticipated during their first year at the university, they did not fare as well during the second year when they were not receiving special services. More TRIO students began school for a second year than the control, and a higher proportion registered each quarter. However, overall, only 29% of TRIO students maintained continuous registration during their second year compared to 27% Control group students. There were no significant differences between TRIO and Control group grades, credit completion ratios or retention rates.

Although these statistics do not try to account for students transferring to other institutions, the evidence here indicates that special programs may need to be ongoing rather than short term if the positive results are to be maintained.

TABLE I

Retention Rates

Number and Percent of 1980-81 TRIO Students Who Remained
Registered at University of Minnesota in 1981-82 by
Quarter as Compared to Low Income Control Group

		ICS Total N = 63	Counseling Total N = 88	Tutoring Total N = 97	Control Total N = 59	TRIO Total N = 248
Fall '81	N	37	37	58	27	132
	%	59%	42%	60%	46%	53%
Winter '82	N	26	30	54	23	110
	%	41%	34%	56%	39%	44%
Spring '82	N	20	23	42	17	85
	%	32%	26%	43%	29%	34%
All 3 Quarters '81-'82	N	19	19	35	16	73
	%	30%	22%	36%	27%	29%

TABLE II

Second Year Follow Up

Cumulative Grade Point Average (GPA), Credit Completion Ratio
for 1981-82 Academic Year. Mean Credits Attempted, Receiving Grades, Passed

	ICS	Counseling	Tutoring	Control	TRIO Total
Number of Students	30	37	54	25	121
Cumulative GPA (N's included, N = 0)	2.07	1.62	1.88	1.96	1.86
Cumulative GPA (N's excluded)	2.53	2.49	2.45	2.60	2.48
Credit Completion Ratio 1 (Proportion of Credits Receiving Grade)	.91	.91	.93	.95	.92
Credit Completion Ratio 2 (Proportion of Credits Passed)	.74	.59	.74	.71	.70
Yearly Mean Credits Attempted	29.93	27.62	28.72	29.80	28.69
Yearly Mean Credits Receiving Grade	27.13	25.05	26.72	28.40	26.36
Yearly Mean Credits Passed	22.20	16.24	21.22	21.24	19.94

CHAPTER XII
CONCLUSIONS AND RECOMMENDATIONS

During the 1981-1982 academic year the TRIO/Special Services Program appeared to be successful in meeting its program goals. First, the program offered an opportunity for disadvantaged students to develop the skills necessary to survive in a university setting. Educational success was promoted and a high proportion of students completed their first year in higher education in a creditable academic program. Students became aware of university and community resources. Their educational and career planning and goal setting abilities were expanded, and they were provided with a supportive educational environment. The program also increased awareness on the part of staff and students concerning the communication difficulties the hearing impaired face in higher education.

Based on the evaluation results presented in this document and recommendations drawn from the review of educational research and evaluation, the following recommendations are presented for program improvement:

- investigate counseling students' outcomes further to determine reasons for lower GPA's,
- encourage the use of tutoring services, expand the program to include the math skills tutorial program,
- place greater emphasis on peer tutoring/peer counseling/peer monitoring, especially in tracking student attendance,
- evaluate peer counselors program,
- explore the feasibility of expanding services for hearing impaired students, such as increasing interpreter hours and providing note-taking,
- explore the feasibility of expanding the program to meet the needs of other handicapped students already on campus,
- track the progress of Summer Institute students more closely during the academic year, and
- investigate implementing a program to support second year and upper division TRIO students in continuing their education.

Thank you for participating in the TRIO/Special Services Program and its evaluation efforts by reading this program evaluation. Hopefully, you will find the information presented here interesting and useful. If you have any comments, questions, or suggestions, please contact:

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